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ABSTRACT

Investigators used 7 data collection instruments to survey a sample of 223 local education agencies receiving funds under the Indian Education Act, Title IV, Part A, in order to describe the effectiveness of projects so funded, provide management and grant administration information to the Office of Indian Education, determine the feasibility of impact evaluation of the program, and document the interrelationship of federal programs supporting Indian educational policy. Results of analysis regarding the last objective proved inconclusive. Among the findings, reflected in the 41 conclusions, were that: there were regional differences in project emphasis, there were more effective programs in large urban districts for overcoming academic differences and providing support services, a large amount (75%) of funding at the local level was used for staffing, there was greater parent committee involvement in districts where per pupil expenditure was over $1,000, and there was inconsistent reporting of fiscal data by local districts. Ten recommendations included augmenting the level of program funding, identifying and assessing the special education needs of Indian children, subjecting Title IV Part A to impact evaluation, and increasing the Office of Indian Education staff. Most of the tables referred to in the summary are contained in appendices to the Final Report. (SB)

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A NATIONAL EVALUATION SURVEY OF PROJECTS FUNDED UNDER TITLE IV, PART A OF THE INDIAN EDUCATION ACT OF 1972

EXECUTIVE SUMMARY

Contract No. 300–76–0397

November, 1978

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

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PREFACE AND ACKNOWLEDGMENTS

This is the executive summary of "A National Evaluation Survey of Projects Funded Under Title IV, Part A of the Indian Education Act of 1972". This executive summary is submitted to the Office of Planning and Dissemination, U. S. Office of Education cation by Communication Technology Corporation (CTC) Marlton, N. J. in fulfillment of Contract #300-76-0397. The final report, published November, 1978, provides the basis for this Executive Summary. In order that the reader of this Executive Summary may have a sense of the scope of the final report, the Table of Contents of that report will be found in the Appendix.

This Study was conducted by Communication Technology Corporation (CTC) with the assistance of members of the Contract Research Staff of Virginia Polytechnic Institute and State University. The CTC and VPI&SU staff members who worked on the Study are:

Project Director: Thomas B. Mullowney
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The key to the success of this project was the data collection effort which was, for the most part, subcontracted to Native American owned, operated or staffed firms strategically located within the stratification regions. These firms were:

Educational Services Institute
Instruction and Technical Services
Katzeek and Associates
Management Consultants Unlimited, Inc.
Natanco Inc.
Native American Research Associates
Oklahoma Indian Education Association
WASSKA Technical Systems and Research Co.
Western National Consultants

Without their dedication and professional conduct during this data collection effort, CTC could not have achieved the 98% return it experienced. We would like to acknowledge their extraordinary efforts especially in consideration of the adverse winter conditions they experienced while collecting these data.

CTC would like to express its appreciation for the interest and assistance provided throughout the contractual effort by the Policy Advisory Group (PAG) members. Their assistance was invaluable in affording CTC an insight into the concerns of the Indian community. The members of this group were:

Isabella Brady
Wendall Cochran
Ted George
Kenneth Ross
Helen Sheirbeck
John Stevens
Purnell Swett

CTC would also like to thank the members of the Research Advisory Group (RAG) for their attention to detail in the early stages of the effort. The members of this group were:

F. Reid Creech
Larry Barber
David Berliner
Dayle Hartnett

CTC would further like to express its appreciation to Kathleen A. McKee for her research effort in the conduct of the Legislative Literature Review.

In addition to the cooperation provided by principals, superintendents and administrators at the local and state levels, we would also like to acknowledge the patience and cooperation afforded our data collectors by the parents, project directors and teachers associated with the local projects.

Finally, but by no means considered last, we would like to express our appreciation for the very able assistance and guidance provided us throughout the Study by Drs. Emmett L. Fleming, Jr. and Robert Maroney of the Office of Evaluation and Dissemination, U. S. Office of Education.

SECTION I

INTRODUCTION

1.1 Purpose of the Study

The "National Evaluation Survey of Projects Funded Under Title IV, Part A of the Indian Education Act of 1972" was conducted by Communication Technology Corporation (CTC). It was authorized and contractually funded by the U. S. Office of Education, Office of Evaluation and Dissemination. This Study was performed under the authority of the General Education provisions Act.

The scope of the required evaluation was limited to a survey of Title IV, Part A of the Indian Education Act for the following reasons:

- Part A is the broadest effort in terms of funding and the number of programs and projects.
- Part A is Local Education Agency based and USOE administered.
- Part A grants are likely to reach 2500 to 3000 LEAs in the near future thus creating administrative concern in the U.S. Office of Education with regards to grant monitoring.
- Part A evaluation presents the opportunity to assess how the direct USOE-LEA system meets the challenge of the Congressional mandates of this portion of the Act.
- Part A evaluation offers the opportunity to determine the feasibility of incorporating Local Education Agencies' student assessment systems into a National Evaluation model sufficiently rigorous to support future quantitative evaluations of Part A programs and projects.

This evaluation survey was primarily directed toward the evaluation of the implementation of Title IV, Part A projects, combined with a feasibility study to determine evaluation criteria which might support future impact studies. The survey thrust was directed toward identifying non-fiscal obstacles to the implementation of the Title IV, Part A projects and making administrative and/or legislative oriented recommendations to remove these obstacles. Further, it was not the intent of the Study to restate the shortcomings of the American educational system in meeting the special needs of Native American children, but rather, to document the progress made in relation to the funds committed.

1.2 Context of the Study

PART A of the Indian Education Act provides financial assistance to local education agencies (LEA's) and non-LEA's for supplementary elementary and secondary education programs designed to address the special educational needs of Indian children. Under payments to local educational agencies, grants are awarded to LEA's on an entitlement basis according to the number of Indian or Alaskan Native students enrolled multiplied by the state average per pupil expenditure. Eligible applicants are those school districts with at least ten Indian pupils or, if less than ten, then the Indian enrollment must constitute one-half or more of the district's total enrollment. This eligibility requirement does not apply to districts serving Indian children in Alaska, California, Oklahoma, and those located on or near an Indian reservation.

Ten percent (10%) of the amount appropriated under Part A for LEA's is reserved for non-LEA's, defined as Indian schools on or near reservations which are not local educational agencies or have not been LEA's for more than three years. From this reserve, discretionary grants are awarded on a competitive basis to applicant eligible schools.

PART A of the Indian Education Act is consistent with the philosophy of the Indian Self-Determination and Education Assistance Act of 1975 which is intended to provide full participation by Indian people in programs designed to assist them. To illustrate, not only is parent participation through parent committees a requirement for an LEA to receive Part A funding, but Indian parents must participate in the planning, budgeting, operation and evaluation of the program. The belief is that parent participation will improve not only the quality of the program, but more importantly, the educational achievement and attainment of Indian children.

The types of projects and programs which are funded under Part A of the Indian Education Act include:

(1) Planning and other steps in the development of programs specifically designed to meet the special educational needs of Indian children. These include pilot projects to test the effectiveness of any plans that are developed.

(2) Establishing, maintaining, and operating the several kinds of programs to serve the needs of Indian children. By special permission of the U.S. Commissioner of Education, this may include minor remodeling of classrooms (e.g., in a building already completed, money could not be spent for repairs or maintenance, but could be spent to extend utility lines and for acquisition of necessary equipment).

PART A is an entitlement program. Because of the unspecified nature of "the special educational needs" of Indians, LEA's may consider for inclusion activities that build upon or support the heritage, traditions, and life style of the community being served.

1.3 Objectives of the Study

There were four specific objectives for this study.

(1) to describe the projects funded through Part A of IEA and determine the degree to which activities undertaken in these projects were successful;

(2) to provide information to OIE for management and grant administration;

(3) to determine the feasibility of impact evaluation of the Title IV, Part A funding program and the funded progress at the student level.

(4)[1] to document the interrelationship of alternative federal programs that support educational programs for American Indians and to recommend legislative changes to create a more uniform approach;

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[1] Because of the fact that only a limited amount of data concerning alternative federal programs to support Indian education could be found during the data collection phase of this Study, the results of the analyses regarding this objective proved inconclusive.

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SECTION II
CONCLUSIONS AND RECOMMENDATIONS

2.1 CONCLUSIONS

The conclusions presented in this section are derived from the analysis of the data resulting from Study implementation.

1. Differences in project emphasis do appear to exist regionally. Seven of the regions showed project emphasis to be on objectives in the cognitive domain. The remaining three regions showed project emphasis to be on objectives in the affective domain. Four of the regions in the cognitive domain were focused on remedial services and three were directed toward cultural enrichment. Those with the affective domain thrust were involved in counseling and guidance, development of self-concept, and improvement in attitudes toward school.

2. Skill development-type instruction projects (eg., arts and crafts) were found predominantly among rural high density districts as well as projects with grant sizes of $10,000 or more. However, nearly 40% of the districts surveyed reported that no time was devoted to skill development-type instruction.

3. Such services as general academic services, general vocational skills, general academic enrichment, reading, mathematics, agriculture, business, service occupations, domestic occupations, medical/dental, attendance, attitudes toward school, peers, self, and ambition were more numerous in the districts receiving a per pupil expenditure of $1,000 or more than in districts receiving less than $1,000. More industrial and business skills and psychological services were evident in districts with less than $1,000 per pupil expenditure, while more bilingual education and other affective services were evident in districts with greater than $2,000 per pupil expenditure.

4. Large urban districts tended to have more effective programs in the areas of overcoming academic difficulties and providing supplementary services. This may be partially attributed to the organized approach taken toward the administration of funds and the sophistication of the staff. Staff time spent on projects is somewhat greater in urban districts than in rural districts.

5. Rural high density districts were the next most effective in the areas of overcoming academic difficulties and providing supplementary services. This may be attributed to the number of children available for project enrollment and/or the funding level. The sophistication of staff and the amount of time spent on the project is almost directly proportionate to the level of funding.

6. The number of vocational objectives was quite small and did not approximate what could be expected when considering that the respondents perceived great need in this area.

7. Smaller districts tended to have a problem creating a setting for the projects because the children selected for the program are found across all grades. This multi-grade problem makes it difficult to design a program to interest and meet the needs of all children in the same setting.

8. Small (under $10,000) projects tended to have single objectives and appeared to have been more successful in accomplishing them in the cognitive domains (reading, mathematics, etc.) than in the affective domains (attitudes toward school, peers, self, etc.). The lack of success in the affective domain may have been largely due to the multi-grade problem. Projects based in the cognitive domain, such as reading, could employ individualized instruction. This technique may not have worked effectively in the affective domain, thus compounding the task of achieving success.

9. There was a large percentage of districts which had reading and guidance/counseling needs and objectives which have demonstrated moderate to very effective improvement in the following areas: overcoming academic difficulties, supplemental services, attitudes toward school, self-concept, staff attitudes toward Native American pupils and attitudes of non-Native American pupils toward Native American pupils. There appeared to be a relationship between the size of the grant and the percentage of districts demonstrating moderate to very effective improvement in the areas cited above. The effectiveness of the projects increased as the grant size increased.

10. Approximately 67.2% of urban districts with pupil enrollment surpassing 20,000 and 10% of rural low density districts with pupil enrollment surpassing 5,000, received grants above $50,000.

11. Urban districts under 20,000 enrollment and rural high and low density districts had projects which were rated by their staff and parent committee as moderately to very effective in overcoming academic difficulties and providing supplemental services.

12. Over half the projects reported classroom-type instruction projects. The greatest incidence of classroom-type instruction projects occurred in rural high density districts. Urban districts and districts with grant sizes above $50,000 reported the least classroom-type instruction projects.

13. Project effectiveness in the areas of overcoming academic difficulties, providing supplemental services, improving school attitudes and developing favorable self-concepts were not related to the various levels of per pupil expenditure, i.e., project effectiveness as judged by staff and parent committee members was not related to the various ranges of per pupil expenditures investigated.

14. The predominant area of non-instructional services provided through Title IV, Part A was in medical/dental services (20% of the districts). From a regional standpoint, the Rocky Mountain region, the North Central region, and the Southeast region were major areas in which school districts provided medical/dental services. The data revealed that the two regions in greatest need of these services, as perceived by the school districts, were the Southeast and the Pacific Northwest. Therefore, it can be concluded that the districts in the Southeast should further augment their efforts to provide these services. Furthermore, the districts in the Pacific Northwest should take steps to address the perceived need for these services.

15. The project staff activity profile closely replicated the thrust of the objectives in the majority of the school districts reported. Staff activities concentrated mainly in the following areas: student self-concept improvement, attitude toward school and peers, development of responsibility, self-direction and ambition, cultural heritage, remedial reading, counseling and guidance and attendance. Rural low density districts as well as districts with a grant level below $10,000 demonstrated a great deal of non-involvement in these areas which is attributable to their lack of staff or the fact that their staffing was limited.

16. Seventy-five percent of project funding at the local level appeared to be directed toward staffing. This was an expected finding since this same percentage of projects are "aged" or more than one year old and do not have the higher expenditures of a new project for materials, etc.

17. Staff involvement, which was much more prevalent in urban high density districts (above 20,000) than in rural high and low density districts, was concentrated in such project areas as reading, mathematics, native language and cultural heritage, counseling and guidance, attendance, self-concept, responsibility and self-direction, and attitudes toward school.

18. Generally, the parent committee activities, which were evenly distributed across the urban/rural strata and grant size included: staffing recommendations, public relations, proposal development, budget review, conduct of needs assessment, proposal review and final report review.

19. Parent committees in the majority of the urban districts and rural high and low density districts were involved in additional activities such as: curriculum decisions, pupil selection, establishment of project objectives, project monitoring, project evaluations, and final report development. The parent committees were generally not involved in assisting with instructional activities.

20. Parent committee involvement tended to be greater in districts where the per pupil expenditure was over $1,000 than in districts with less than $1,000 per pupil expenditure.

21. Projects in which parent organizations were involved were considered effective in helping Native American pupils to overcome academic difficulties, improve their attitude toward school and develop a favorable self-concept.

22. The majority of all school districts were targeting programs to those needs viewed as top priority by staff and parents. These needs include the following areas: remedial academic curriculum improvement, self-concept development and establishment of project objectives.

23. The special educational needs of Native American children across the country were generally the same.

24. For the most part, input for the needs assessment, used for project design by urban and rural districts, was gathered from Native American pupils, parent committees, community members, project staff and district staff. In urban districts especially, little data was received from Tribal Committee members, which attests to the diversity of tribes in such a setting.

25. The type and quality of the needs assessment conducted at the local level did not seem to have any effect on project success.

26. The major areas of need identified by the majority of the contributors to this study are listed as follows from the greatest need (first item) to the least need (last item); Native American heritage, remedial reading, remedial general academic areas, motivational, physical, arts and crafts, remedial mathematics, bilingual education and community involvement.

27. Factors contributing to the educational problems of Indian children in order of importance were: lack of motivation, deficient early education, adverse home environment, negative peer group influence, ethnic discrimination, health problems and nutritional problems.

28. The staff and parents rated the majority of the districts as being at least moderately effective in overcoming academic difficulties, providing supplementary services, improving attitudes toward school, and developing a more favorable self-concept.

29. The data analyzed revealed that, in the vast majority of the districts, there was staff involvement and program improvements in the areas of academic achievement, Native American language and cultural heritage, counseling and guidance, attendance, self-concepts, responsibility and self-direction, and in attitudes toward school.

30. The majority of the eligible unfunded projects manifested that they were aware of their eligibility and some did, in fact, make an application for funds.

31. One of the reasons that eligible districts did not apply for funds appeared to be because of previous refusals and/or the difficulty in complying with proposal requirements, i.e., needs assessment and reporting regulations.

32. Some districts with moderately large Native American populations that did not apply for funds do have Indian organizations such as a parent council. The general reason supplied by these districts for not submitting an application was a lack of cooperation/agreement between the parent council and the school district.

33. The major reason for small districts not making an application for funds was too few Native American pupils in the district. A secondary reason was the difficulty in assembling a parent committee in these small districts.

34. A few districts did not apply for funds because they perceived the funds to be of a discriminatory nature.

35. Federal programs providing educational services in the unfunded districts included ESEA Title I, Johnson O'Malley, ESEA Title IV and Special Education/Handicapped. The major thrusts of these programs were in the areas of remedial reading, remedial general academic, and counseling and guidance.

36. No significant difference in test score gains was discovered between Native American and non-Native American pupils. This near equal progress between the Native American and non-Native American pupils denoted a plus in favor of the IEA Title IV, Part A projects.

37. An analysis of several alternative methods of evaluating the impact of funding for Native American education programs suggested that certain models might permit an evaluation in the area of reading. This would only be possible under a controlled testing situation when a comparison were to be made between a group of Native Americans participating in the project and a group of Native Americans not participating in the project.

38. Results derived from the application of certain models indicated that (a) projects with reading objectives were rated more effective in overcoming academic difficulties than were projects without reading objectives; (b) projects with self-concept objectives develop more favorable self-concepts in Native American pupils than projects without self-concept objectives.

39. The level of technical assistance provided by the Office of Indian Education (OIE) did not appear to be consistent with the number of Part A projects. This might have been due, in part, to an insufficient number of field staff available to the OIE. While the available Part A field staff members are doing a good job and

accomplishing the urgent tasks, their numbers are insufficient to accomplish all that a program such as Title IV Part A demands in the way of technical assistance.

40. The Title IV Part A program does not, in its present configuration and operational mode, lend itself to an impact evaluation. The projects are too diverse and without national thrust and coordination to provide the necessary common metric. Present archival data are too dispersed and not uniform enough to draw national inferences. When program objectives and test instruments are coordinated and a controlled testing system implemented, impact evaluation appears feasible.

41. There was an inconsistency in the fiscal data reported by local school districts. This lack of consistency can be attributed, in part, to the fact that many school districts have converted to new accounting procedures. The remaining inconsistency may be attributed to a lack of familiarity with available data on the part of both the respondents and the data collectors.

2.0 RECOMMENDATIONS

The results of this Study have suggested a set of clearly defined conclusions. These conclusions form the basis for the following set of recommendations.

1. The funding of programs to meet the special educational needs of Native American children, under P.L. 92-318, Indian Education Act, Part A, should be continued.

   The results of this Study suggest that the funds expended have been more than moderately successful in the educational growth of Native American children. While there is no clear-cut definition of the special needs of Native American children on a national basis, the projects have been successfully targeted to meet the locally defined needs. In the majority of the projects nationally, the stated objectives have been met or exceeded as perceived by parents, project staff and district administrators. The funding is quite important to the local districts in meeting these special needs.

2. The level of funding for Title IV Part A of the Indian Education Act should be augmented.

   An increase in the funding level would serve several major purposes — first, to serve a greater number of Native American children, and secondly, to augment the Office of Indian Education staff for project monitoring and provision of technical assistance. Another, equally important, benefit of an increase in the level of funding could be an increase in the per pupil expenditure for those Native American children participating in the program. The project monitoring aspect is quite important from the standpoint of coordinating efforts at the local level in the implementation of designed programs. There are a number of federal funding sources which serve Indian children. However, Title IV Part A funds should be directed toward meeting those special educational needs of Native American children which are not, or cannot, be met by other funding sources. The technical assistance which could be provided by OIE would fall into those areas suggested by this Study, i.e., assistance for unfunded sites in proposal preparation, formation of parent committees, project design, etc., and assistance for funded sites in the design and implementation of projects.

It is important that more Native American children participate in programs funded under Title IV Part A. The results of this study indicate the perception of improvement in all educational and social aspects of the Native American child. This was perceived as due to participation in projects directed specifically toward the special needs of the Native American child.

The need for impact evaluations in the future would also affect the funding level. It would be necessary to implement a national testing program of some variety to afford the national data base for this sort of Study.

While this discussion touches upon other recommendations and the associated discussions which will follow, it rightfully belongs at this stage since the continued success and program expansion is dependent on an increase in funding levels.

3. An effort to identify and assess the special educational needs of the Native American children should be considered.

An assessment of the needs of the Native American community would permit the thrust of the majority of local projects to be more clearly identified without negating the assessment performed at the local level. Further, it would afford the coordination of projects on a national scale without detriment to the local control of project design. The major areas of programmatic thrust would be defined thereby concentrating the majority of the expenditures and providing maximum benefit to Native American children.

There are several side benefits which can be derived as a result of this definition of needs. Procedural models of standard programs outlining costs, staffing and materials could be constructed, based on the perceived needs, which would permit replication by districts without major modification and unnecessary expenditure of funds on design effort. This would also promote program uniformity on a national scale which could readily lend itself to impact evaluation in the future.

4. The Title IV Part A Program should be subjected to an impact evaluation.

While it has been concluded that the Program does not currently lend itself readily to an impact evaluation, it is felt that OIE could establish the proper environment so that an impact evaluation could take place in the future. This would, of necessity, indicate the use of a common metric across all projects to provide the national data base required. A testing program could be devised which would permit this type of evaluation. This testing program should be conducted only within the population of Native American students to avoid the "standard comparative" to "national norms" which may not be appropriate for the Native American population.

5. The use of a minimum level of funding should be examined.

One of the sampling considerations employed in the conduct of this Study was that of project funding levels. The evidence suggests that projects with funding levels under $10,000 were generally not perceived as successful as those funded at levels in excess of $10,000. This was apparently based on the fact that the small districts were not meeting as many of the perceived needs of Native American children since they generally directed these projects toward a single objective.

While this perception belies the fact that these projects with single objectives were successful in achieving those objectives, it is also true that, because of the low level of funding, many Native American children are left with unmet perceived needs.

Based on this success in the achievement of objectives, if only a single objective, it is difficult to say that these small projects should be discontinued. However, it is necessary to balance the involvement of children in the program with the meeting of needs. The methodology associated with this balancing act cannot be anticipated to be uniform on a national basis since geographical and cultural factors will have to be considered.

OIE should examine the possibility of setting a lower limit on funding so as to encourage neighboring districts to enter into cooperative projects involving more children. It can be projected that this may not be possible in all cases so the effects of this lower limit on funds must be carefully weighed. Obviously, the initial effect will be the exclusion of smaller projects involving a few children when several of these smaller districts cannot set up a cooperative project meeting the funding limitation. While this is apparently an undesirable effect, the resultant effect of this will be that additional funds will be made available to larger projects to service additional Native American children and/or improve the quality of current services. This, in concert with a national project thrust and the availability of project models, will afford a more cost effective program serving a larger percentage of the population of Native American children.

Certainly, OIE will have to make some provisions for small outlying districts which would qualify otherwise and have small numbers of Native American children to serve. Perhaps a packaged program, based on the national perception of need, could be made available to these districts along with some technical assistance/resource support from OIE.

It is not the intent of the discussion of this recommendation to present the absolute solution to the problem, but rather to propose that there is a problem and that it should be addressed.

6. The use of Parent Committees in the design and implementation of Title IV Part A projects should be continued as a condition of funding.

   The results of this Study suggest that successful local projects are those that have an active, involved and informed Parent Committee. Efforts should be extended to provide technical assistance, in some form, for local districts to form, orient, operate and involve parent committees in the Part A project process.

7. The proposal, funding and project implementation cycles should be more closely aligned.

   In order to insure effective project planning, staff assignments and project continuity, the timing cycles of the proposal submittal and availability of funds must be better coordinated. Presently the lag time involved presents local districts with severe problems in staffing and project planning. The use of a two or three year funding cycle for projects should be considered to eliminate the area of concern.

8. Local evaluation of projects should continue to be required.

   Timely evaluation of projects at the local level, at the very least, affords the parents and project staff the opportunity to view results/outcomes prior to planning next year's project. Further, it offers OIE some basic data regarding individual projects even if there are no common metric to allow national inferences to be drawn.

This requirement also infers that projects should be designed with some measureable outcome associated with the objectives.

9. The OIE staff should be increased to afford comprehensive project monitoring and technical assistance to be made available to eligible and/or funded districts.

While it can be stated that the existing Part A field staff within OIE are doing a good job, they are too few to provide the needed coverage.

A number of unfunded districts indicated that they were not provided with adequate technical assistance in project design/proposal preparation. Further, it was noted that districts that had their proposals rejected wanted an in-depth debriefing to pin-point areas in the proposal that could have been changed/improved to make them acceptable.

This increased staff might possibly provide an answer to the need for program coordination at the local level. Since there is no coordination of federal, state and locally funded programs within the funding structure of Title IV Part A, there is some need for this to be provided. Part A funds are provided directly to the Local Education Agency (LEA) upon approval of their application. Other federal funding sources should also impact Native American children and their educational needs. However, Title IV Part A funds are made available to the school districts to meet the special educational needs of Native American children. Some effort should be made to assure that these funds are not spent for programs for Native American children that might have been funded and made available for these children by other sources, e.g., ESEA Title I. The programs for Native American children should be uniquely designed to serve the demonstrated assessed or perceived special needs of Native American children so that they might progress through school at least at the same rate as their non-Native American peers.

10. An effort to collect and report uniform fiscal data across all school districts should be considered.

The collection of uniform fiscal data on a consistent basis from the universe of school districts would greatly enhance future data collection efforts. It is suggested that the National Center for Education Statistics (NCES) might be in the best position to initiate this activity. Timely retrieval and processing of such data by NCES would provide a comprehensive data base from which financial information for future studies could be drawn. A data base such as this might create only a marginal increase in current reporting requirements while, at the same time, would add significantly to the quality of the data collected.

SECTION III

3.0 STUDY OVERVIEW

3.1 Design of the Study

CTC conducted preliminary research during the early stages of the contract effort which created the basis for the evaluation design. This preliminary research included interviews with staff personnel from the Office of Indian Education (OIE) and the Office of Planning, Budgeting and Evaluation (OPBE) in the U.S. Office of Education as well as staff personnel in the Education Division of the Bureau of Indian Affairs (BIA) who were cognizant of Indian Education in general, and Title IV, Part A in particular. Additionally, CTC conducted an analysis of the Title IV, Part A Project Applications as well as Project Reports in order to set the stage for the evaluation survey. These activities, in concert with extensive legislative and evaluative literature reviews and preliminary site visits, provided CTC with a sound foundation for its formative design effort, which culminated in the field test of the areas of inquiry and the instrumentation designed for the Study.

Based on this preliminary research, an evaluation strategy was formulated, a sampling framework established and the survey management and data analysis plans generated.

3.1.1 Evaluation Strategy

The evaluation strategy called for the survey of various cognizant audiences involved in Title IV, Part A projects and associated federal programs which impact Indian education activities. These audiences were identified as: (a) eligible, funded Title IV, Part A project sites (pertinent project data as well as LEA demongraphic and fiscal data were collected in order to describe the projects) (b) eligible, non-funded Title IV, Part A project sites (this audience constituted a matched sample to the funded sites and was surveyed in order to determine reasons for non-participation) (c) project grantees from the HEW-administered Office of Native American Programs (ONAP) (these grantees were surveyed in order to provide corroborative perceptions of educational needs of Indian children). Further information concerning the density stratification, grant size stratification, and numbers of each audience included in the sample is presented later in this section (see Section 3.1.2 - Sampling Design).

In order to achieve the objectives of the study, the evaluation strategy called for the collection of certain data which were known to be available based on the preliminary research activities. These data included: (a) district-wide demographic, educational and financial data from the central administration of the LEA; (b) project-specific data, including objectives and organization, from the project director; (c) classroom and pupil-centered data from the project staff; (d) information about parent committee activities and community involvement from members of the parent committee; (e) information about needs of Native Americans from project staff, parent committee

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members and representatives of the Indian community; (f) reactions to the effectiveness of the funded projects from the project director, the project staff and members of the parent committee; and (g) district-wide academic records for the feasibility study from LEA archives.

In order to most effectively and efficiently collect these data, seven data collection instruments were developed and field tested. After undergoing minor revisions, as a result of the field test, the following finalized data collection instruments were prepared for field use: (a) Project Director Interview Guide, which included biographical information, needs assessment documentation information, project implementation procedures, target population data, project staff data, non-instructional resource data, trend data on pupils and staff, perceived impact of projects, assessment of pupil needs and program management effects; (b) Project Staff Questionnaire, which included biographical information, project description, participation data, perceived impact information, and assessment of pupil needs; (c) Assessment of Pupil Needs, which requested information concerning pupil needs. This instrument was administered to the universe of 170 Office of Native American Program (ONAP) Centers across the country; (d) Parent Committee Interview Guide, which included parent activity information, perceived impact information, assessment of pupil needs, and program management effects; (e) LEA Information Package, which included pupil membership and participation data, staffing information, and fiscal information; (f) Pupil Data Retrieval Form designed to gather archival data for a fixed sample of 30 Native Americans and 30 non-Native Americans at specific grade levels for the feasibility test; (g) Non-Funded Site Questionnaire, which retrieved information about school districts eligible to receive Title IV, Part A, but not funded during 1976-77. The base year of the study was 1976-77. However, in the interest of retrieving, if possible, trend data, certain bits of data were collected for the years 1974-75 and 1975-76.

3.1.2 Sampling

The population to be sampled was the set of 845 local education agencies (LEA's) which were receiving funds under the Indian Education Act, Title IV, Part A, as of December 1, 1975. The population thereby excluded LEA's which had been funded since December 1, 1975, which had programs too recently funded to afford effective evaluation. The population so defined included some LEA's which had failed to resubmit for funding; sampling non-refunded districts added valuable information to the recommendations for changes in Part A funding procedures.

In operational terms, the sampling frame included a computerized list, entitled "Office of Indian Education/Summary of Funded Districts (Part A LEA) Run Date: 12/1/75." This list included 845 LEAs in 36 states. Several projects, however, were excluded from the sampling frame in order to reduce the cost of data collection. The projects which were excluded were few in number, generally small, and were located in states in which there were few Indians. Specifically, CTC eliminated from the frame 32 LEA's in the following states: Alabama (3), Arkansas (1), Delaware (1), Iowa (3), Louisiana (8), Maryland (6), Massachusetts (4), Ohio (2), Virginia (3), and West Virginia (1). The actual sampling frame was reduced, therefore, to 813 LEA's. Sampling those LEA's marked for exclusion from the frame would necessitate in some cases, travel to, and collection of data from, a single LEA within a state. Such inefficiency was to be avoided. Excluding the 32 LEA's did not affect the nationwide representativeness of the sampling: the 813 LEA's remaining in the operational sampling frame represented 96 percent of all funded projects; over 97 percent of grant monies were included in the sampling frame; and 97 percent of eligible Indian pupils in funded projects were included.

Stratification

The list of funded projects included in the sampling frame contained the following information: for each LEA there were USOE system numbers and log numbers, the school district name, the mailing address, the city name, the state, the zip code, the 1975 total student enrollment, the 1975 Indian student enrollment, and the amount of the 1975 grant. Using these items of information, the 813 LEA's were stratified on the following basis: (1) Urban LEA's were those LEA's that were in urbanized areas, as defined by the Bureau of the Census (1972).* "An urbanized area consists of a central city, or cities (of 50,000 inhabitants or more), and surrounding closely settled territory" (Census, 1972: XIII). Application of this stratification criterion presented little difficulty when the LEA coincided with, or is included within, a town or incorporated area. However, when the LEA coincided with a county, part of which may have been in an urbanized area, and part outside, a classification decision based on proportionate distribution of the population was employed. Of the 813 LEA's in the population, 178 were urban. (2) Rural High-Density Indian LEA's were districts that were outside urbanized areas. Furthermore, within the LEA, Indians comprised 10 percent or more of the total number of pupils enrolled in school year 1975. This stratum included, more or less, rural school districts in which Indians were densely concentrated. For example, 22 of the 25 funded LEA's in Alaska were in this stratum, as were 130 of Oklahoma's 168 funded districts. In all 26 states, there were 371 LEA's in the rural high density Indian stratum. (3) Rural Low-Density Indian LEA's were districts that were outside urbanized areas in which Indian pupils comprised less than 10 percent of the total number of students enrolled in 1975. There were 264 LEA's in this stratum. The 10 percent criterion was adopted upon consideration of the findings of a recent USOE/BIA study (Emery et al., "A Study of the Impact of Federal Funds on Indian Education," p. 35.) which demonstrated that Indian-related funding patterns differed between LEA's with greater than 10 percent Indian pupils and those with less than 10 percent.

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*Urban LEAs were stratified separately due to the different pattern-of-living that Native Americans experience in an urban environment. Job situations were different in the sense of non-association with the land. Living adjustments in the city were completely different from the communal type living generally experienced in a rural setting. Generally, Native Americans in an urban situation were dispersed and difficult to locate.

Within each of the three primary strata, the LEA's were classified by geographic region. The regional breakdown employed here corresponded closely to that developed by R. D. Gastil. The regional substratification not only divided LEA's into geographically distinct areas, but into cultural regions as well. Gastil contends that:

> . . . It is useful to divide the country into cultural regions as defined primarily by variations in the cultures of the people who dominated the first settlement and the cultural traits developed by these people in the formative period (where these are significant), and secondarily by variations in the cultures of peoples that dominated later settlements, as well as cultural traits developed subsequently. Regions will be defined where there are large areas of relative homogeneity in these factors, and regional borders will be placed, when possible, where there are significant discontinuities (Cultural Regions of the United States, pp. 26-27).

Closely matching Gastil's cultural regions, a classification employing ten regions was adopted. Alaska was included by itself as one geocultural stratum because there were only 25 funded LEA's in the state. These 25 LEA's did not represent a number sufficient to represent additional strata. The following represents the geocultural strata classifications:

Region	Name	States
1	Alaska	Alaska
2	Pacific Northwest	Oregon, Washington
3	Pacific Southwest	California, Nevada
4	Rocky Mountain	Colorado, Idaho, Montana, Utah, Wyoming
5	Interior Southwest	Arizona, New Mexico
6	North Central	Illinois, Michigan, Minnesota, Wisconsin
7	Upper Midwest	Nebraska, North Dakota, South Dakota
8	Central Southwest	Kansas, Oklahoma, Texas
9	Southeast	Florida, North Carolina
10	New England	Maine, New York

The number of LEA's within each stratum by region were:

Region	Urban	Rural High Density	Rural Low Density	Total
1	--	22	3	25
2	19	22	39	80
3	52	29	43	124
4	16	41	22	79
5	14	41	10	65
6	46	34	92	172
7	4	31	11	46
8	16	139	22	177
9	7	6	11	24
10	4	6	11	21
Total	178	371	264	813

The purpose of using the geocultural (regions) stratification was to ensure that the diversity of Indian cultures was covered by this study. In addition, this stratification assured the inclusion of Title IV projects serving tribes located primarily in a specific region of the United States, e.g., Eskimos in Alaska and Seminoles in Florida. Tribes, such as the Eskimo and Seminole, possess a cultural uniqueness which may have included factors such as religion and language which interacted with the effectiveness of particular Title IV project components.

The final ordering, within the three primary strata, within the ten geocultural regions, was by the size of the LEA's 1975 Part A grants, from lowest to highest. Because Part A funds were prorated by the number of Indian pupils, the ranking by size of grant also ranked, within regions and strate, by size of Indian pupil population.

The sampling frame, therefore, consisted of an ordered list of 813 LEA's. At the head of the list was the urban LEA receiving the smallest Part A grant in either Oregon or Washington (Alaska did not have an urban LEA), namely, David Douglas LEA ($5,367.24) in Portland, Oregon. At the bottom of the list was the New England rural low density Indian LEA receiving the largest grant, namely, Akron Central LEA, Akron, New York ($22,161.43).

Sampling Procedure

The size of the sample was 223 LEA's. A sample of 223 allowed for nationwide estimates for all funded urban LEA's, rural high density Indian LEA's, and rural low density Indian LEA's with a precision of 10 percent around proportions near .50 with 95 percent confidence.

The symbol "k" commonly denotes the selection interval in systematic samples (Kish, Survey Sampling, New York: 1965, p. 113). In the sample $k = 715/125 = 5.72$. A random start from 1 to $k = 5.72$ imparts to each LEA the selection probability of $f- 1/k = n/N = 3/17$. All sites with grants $50,000 or greater were taken with certainty. There were 98 of these, making the total sample size equal 223.

A problem arose in this systematic sample in that the sample size, N, was not an integral multiple of k. The most convenient solution was to use fractional intervals. Selecting a random number from 1 to 5.72, the interval, k, was applied thereafter. These numbers were rounded down by eliminating the decimal digits, obtaining exactly $n = 125$ LEA's. (A complete discussion of these procedures may be found in Kish, op. cit., p. 116).

Precisions of the Sample

Since the predominance of analytic questions involved the comparison of proportions of several potential criteria across the sample and since it appeared useful to generate conservative comparisons, sample size estimates were generated using the formula for the comparison of proportions at its most conservative point, where $p = q = .50$. In accordance with the detailed sampling design based on Kish (1965: 115 ff.), Sudman (1956: 56), and Deming (1966: 353), a systematic sampling procedure with a random start was utilized. Assuming a sample proportion of $p = .50$ and using a simple-random sample formula[1] for the computation of the standard errors,[2] the estimated standard error and 95 percent ranges of precision for the three strata were:

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[1] Kish, (Chapter 4 Page 118) if a systematic sample is selected from an alphabetical list of names, this would approximate a simple random sample except for the mild proportionate stratification effect associated with the starting initials. This effect may be negligible, particularly in element sampling, and especially for estimate of proportions. Thus for most lists the variance formula for simple random sampling can be utilized to calculate the variance in a systematic random start sample.

[2] The standard errors were computed by:

$$se(p) = (1-f)\,\frac{pq}{n-1} \qquad se(p) = (1-.258)\,\frac{(.5)\,(.5)}{n-1}$$

Precisions Estimates:

Strata	Sample Size	Standard Error[2]	95% Precision Range[3]
$50,000 or greater	98	.018	Census
$10,000 to $50,000	62	.05	.5 ± .098
$10,000 or less	63	.05	.5 ± .098

Strata	Sample Size	Standard Error[2]	95% Precision Range[3]
Urban	66	.05	.5 ± .98
Rural High Density	108	.040	.5 ± .079
Rural Low Density	49	.064	.5 ± .125

Strata	Sample Size	Standard Error[4]	95% Precision Range[5]
1. Alaska	14	.12	.5 ± .23
2. Pacific NW	23	.10	.5 ± .19
3. Pacific SW	30	.09	.5 ± .18
4. Rocky Mts.	17	.12	.5 ± .23
5. Interior SW	29	.08	.5 ± .15
6. N. Central	42	.08	.5 ± .15
7. Upper Midwest	11	.13	.5 ± .25
8. Central SW	43	.07	.5 ± .13
9. Southeast	6	.19	.5 ± .38
10. New England	8	.19	.5 ± .38

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[3] Precision ranges were computed by: $.5 \pm (1.96)\ se(p)$

[4] The standard errors were computed by:

$$se(p) = (1-f)\ \frac{pq}{n-1} \qquad se(p) = (1-.258)\ \frac{(.5)(.5)}{n-1}$$

[5] Precision ranges were computed by: $.5 \pm (1.96)\ se(p)$

This revised sampling design conformed to the OMB and OPBE requirements for revision. The changes made could still be defended from a statistical point of view.

The most important aggregation, of course, was for the entire nation. A sample size of 223 allowed estimates with a precision of six percent with 95 percent confidence. This, however, assumed only one proportional variable. Procedures existed to estimate required sample sizes for a number of stochastically independent proportional variables. A sample size of 223 allowed estimates with a precision of ten percent with 95 percent confidence for up to 65 stochastically independent variables. In sum, 223 LEA's provided a sample of sufficient precision for practically any contemplated number of variables in the evaluation aggregated nationally.

Variance Estimates

Theoretically, variances for systematic samples presented a considerable problem. Valid variance estimates required at least two random selections per stratum. But the systematic principal sample employed consisted of only one selection from each of 223 implicit strata. There were, however, a number of alternative practical computations available. CTC suggested using the successive difference method (Kish, op. cit., p. 119), which was easy to calculate with high speed computers. The variance of the mean was computed as:

$$\text{var}\ (Y) = \frac{1-f}{2n(n-1)} \quad {}^{n-1}_{i} \quad (Y_i \ - \ Y_i + 1)^2$$

A Note About (SPSS) Computing Formulas

It should be noted that standard errors computed in most packaged statistical programs assumed a simple random selection of elements. For example, the formula for the standard error of the mean used in the Statistical Package for the Social Sciences (SPSS) was:

$$\text{se}\overline{(Y)} = s_y^2/n \ ,$$

where,

$$s_y^2 = \Sigma\,(Y-\overline{Y})^2\ /n-1.$$

Application of this formula implicity assumed that the finite population correction (fpc), (1-f) = (1 - n/N), was negligible. However, the fpc in this sample was not negligible. It was (1 - f) = .82. Therefore, even assuming simple random sampling, the SPSS estimate of the standard error of the mean overestimated the true standard error.

Design Effects

Moreover, application of the simple random sample (SRS) formula, even with the fpc correction, understated the true variance. This difficulty arose from employing the SRS formula when the successive differences method (see above) was to be preferred. However, the simplicity of using the SRS formula justified ignoring the differences between SRS variance estimates and the true sample variance.

If the ratio of the true variance to the fpc corrected SRS variance was nearly equal to 1.0, there was negligible improvement, and the SRS formula could be employed. This ratio is commonly called the design effect, and is defined as:

$$\text{Deff} = \frac{\text{var}(Y)}{(1-f)\,S_y^2/n}$$

where (in this case) var (Y) is computed by the successive differences method, and S_y^2 was computed as in SPSS.

Subsampling Within the LEA

Analysis of the effectiveness of projects funded under Part A of the Indian Education implicitly assumed that the funded project was the unit of analysis. This sampling plan makes that assumption explicit. Selection of the LEA as the unit analysis was a compromise made necessary by the study's multiple purposes. At one level of analysis, information was gathered about Native American pupil participants. At another level information was gathered about the project. Analysis at both levels could not be accomplished easily without weighting, unless the probabilities of selection of respondents was equal within the LEA.

3.1.3 Analysis Plan

a. Overview of the Analytic Requirements. The research task involved in the study goes beyond the simple survey to identify or develop information upon policy concerns. The research task actually involves the conduct of three separate research thrusts and the merging of knowledge gained in these thrusts into an overall perspective of the national program. This merger process involves the development of a chain of logic that provides answers to the evaluative questions through the sequential elimination of competing hypotheses or concerns. The development of the study design required this strategy due to the inability to establish a controlled study environment which would permit testing and comprehensive data collection. The inability to establish this environment is due to the discretionary nature of the national program, the prevailing history of the program, the uniqueness of the program target, and the already heavy burden of federal data collection efforts on the public schools.

In all, four analytic requirements were involved. They were: (1) the survey and analysis of both participating and non-participating districts to see if there existed differences in needs of these two types of districts; (2) the survey of needs expressed to an Indian communication base (ONAP Centers) and the comparison of these results to the needs expressed by public school districts to determine if Indian expression of needs differed from those perceived by school districts; (3) the survey, description and assessment of the Indian Education Act Program to determine what is being developed through federal sponsorship, to determine the efficiency of the grant delivery system, and to see what objectives were established and met by the projects making up the program; and (4) to investigate the feasibility of an impact evaluation upon the national program to see if uniform testable criteria could be identified, and to see if a definable basis of impact could be discerned.

The four analytic requirements, when merged, were designed to address issues concerning targeting of the national program, appropriateness of funding conditions of the program, and modifications of the program required in the new legislation of the act. The contents of the section on the development of the analysis plan in the final report specifies the design efforts and the elements of the analysis plan which were determined through these design efforts. The description of the final analysis plan in the final report and its development attempts to refer to previous design efforts contributing to the analysis plans and overviews the essentials of each analytic plan section.

In the development of the analysis plan, two paradigms proved very helpful. First, areas of inquiry were specified and planning studies were completed to determine what variables within these areas of inquiry could be measured during the study. This paradigm provided a listing of independent and dependent variables available for analytic treatment. The second pardigm was built upon a matrix of evaluative concerns structured during the gathering of information cycle. This paradigm provided a structured format through which prioritized analytic issues could be specified and addressed if variables to answer them were available. The following table of areas of inquiry was the conceptual origin of the study. (See Table III-1). The asterisked variables represent the elements not available for study after preliminary design work was completed.

TABLE III-1
AREA OF INQUIRY LIST OF VARIABLES

I. LEA Demographic Characteristics
  - A. Population
    - 1. Community Size
    - 2. Density of Indians
  - B. Degree of Urbanization
  - C. Socioeconomic Status
    - *1. Welfare
    - 2. Educational Background
  - D. Tribal Characteristics

II. LEA Educational Characteristics
  - A. Number of Schools
  - B. Enrollment (by grade level and ethnicity)
  - C. Absenteeism (by grade level and ethnicity)
  - D. Academic Achievement (by grade level and ethnicity)
    - **1. Reading
    - **2. Mathematics
  - *E. Dropout Rate (by grade level and ethnicity)

III. LEA Fiscal Characteristics
  - A. State Aid (by type)
  - B. Local Revenues (by source)
  - C. Federal Funds (by title)
  - D. Per Pupil Expenditure

IV. LEA Personnel Characteristics
  - A. Staff (by ethnicity and grade level)
    - 1. Administration
    - 2. Teachers
    - 3. Aides
    - 4. Other
  - *B. Staff (by source of revenue)
  - *C. Staff (by program assignment)

V. LEA Special Emphasis Activity Characteristics
  - A. Activity Descriptions (by type)
    - 1. Grades Served
    - 2. Revenue Sources
    - 3. Students Served (by ethnicity)
    - 4. Schools Served

* Not Available
** Only Partially Available

TABLE III-1 (Continued)
AREA OF INQUIRY LIST OF VARIABLES

VI. Non-School Resources Used by LEA
  **A. Social Services
  *B. Health Services
  *C. Employment Services

VII. IEA Project Characteristics
  A. Objectives (by grade level)
  B. Participants (by objective)
  **C. Expenditure
  **D. Staff
  E. Community Involvement

VIII. LEA Procedures for IEA Projects
  A. Needs
  B. Target Schools
  C. Eligible Students
  D. Participating Students
  E. Parent Committee Activities

IX. Effectiveness of IEA Projects
  A. Achievement Scores (by ethnicity and activity)
  B. Attitude Measures (by ethnicity and activity)
  C. Attendance Records (by ethnicity and activity)
  D. Participation Records (by ethnicity and activity)
  E. Reactions to Project (by source)

* Not Available
** Only Partially Available

The second paradigm useful in helping to organize or structure the thinking involved in the identification of evaluation issues and priorities is the Matrix of Evaluation Concerns shown in Table III-2. As can be observed, this matrix is designed to show interrelationships between primary elements involved in this study. Six such elements were identified. They include: (1) the funding conditions which include the enrollment of ten or more Indians, the conduct of a needs assessment, the active participation of a Parent Committee, and the mandated local evaluation and reporting requirements; (2) the funding level which is almost directly proportional to the number of Indian children enrolled in the district; (3) the target setting which includes degree of urbanism of the LEA, size of enrollment, relative cost of public services; level of support for education, number of Indian pupils enrolled, socioeconomic status of the LEA, and cultural disposition of the tribal affiliates to the district; (4) Indian needs which may be broadly classified in three areas, personal health and self-image, basic skills development, and cultural development and transmission of heritage; (5) IEA - Part A funded projects which include the organized learning activities, the curriculum and staff development activities and the professional service, counseling and community involvement activities; and (6) the project outcomes which include evidence of receipt of service, of benefit of activity and of impact of project. Table III-3 shows how the Matrix of Evaluation Concerns organizes the variables previously arrayed by the areas of inquiry. The interface of these paradigms simply shows two points of interest: (1) that each area of inquiry provides information pertinent to an evaluation concern and (2) that there is available some, if not all, of the information needed for each evaluation concern. Variables from the areas of inquiry were selected to answer questions organized by the cells of the Matrix of Evaluation Concerns. A still more productive organization of factors is obtained when the Matrix of Evaluation Concerns is interfaced with the contract objectives, as shown in Table III-4. Here, the five contract objectives have been reordered, so as to begin with the objective requiring the most primary information and progressing to the objective requiring the least primary information and most sophisticated analysis. Table III-4 actually provides the organizational structure used to present the analysis plan by interfacing the Matrix of Evaluation Concerns and the five contract objectives. For each cell the analyses was organized from descriptive to interential, and from nationwide to individual when pertinent.

TABLE III–2
MATRIX OF EVALUATION CONCERNS

Elements of Concern	Funding Conditions	Funding Level	Target Setting	Indian Needs	Funded Projects	Project Outcomes
Funding Conditions	1,1	1,3	1,3	1,4	1,5	1,6
Funding Level		2,2	2,3	2,4	2,5	2,6
Target Setting			3,3	3,4	3,5	3,6
Indian Needs				4,4	4,5	4,6
Funded Project Activities					5,5	5,6
Project Outcomes						6,6

TABLE III–3
INTERFACE OF GENERAL STUDY VARIABLES BY AREA OF INQUIRY WITH THE MATRIX OF EVALUATION CONCERNS

Funding Conditions	Funding Level	Target Setting	Indian Needs	Funded Project	Project Outcomes
VII E	III	I (all))	VIII A	IV C	IX (all)
VIII A	IV B	II (all	VIII G	VII A	
VIII B				VII B	
VIII C					
VIII E	VA 2	IV A	VIII C	VII D	
VII C	VI A,B,C				

TABLE III–4
INTERFACE OF MATRIX OF EVALUATIVE CONCERNS WITH CONTRACT OBJECTIVES

TO DESCRIBE AND DETERMINE THE EFFECTIVENESS OF CURRENT PROGRAMS AND PROJECTS FUNDED UNDER PART A.

Cells (1,5), (2,5), (3,5), 4,5), (5,5), (5,6)

TO COLLECT AND SYNTHESIZE DATA TO PROVIDE REQUIRED INFORMATION TO SUPPORT OE PROGRAMMING AND PLANNING DECISIONS AND GRANT ADMINISTRATION PROCEDURES.

Cells (1,3), (1,4), (1,6), (2,3), (2,4), (2,6), (3,6), (4,6)

TO DOCUMENT THE INTERRELATIONSHIP OF ALTERNATIVE FEDERAL PROGRAMS THAT SUPPORT EDUCATIONAL PROGRAMS FOR AMERICAN INDIANS AND RECOMMEND LEGISLATIVE CHANGES TO CREATE A MORE UNIFORM APPROACH.

Cells (3,4)

TO ESTABLISH A DATA BASE THAT WILL SUPPORT THE NEEDS ASSESSMENT STUDY BEING CONDUCTED BY OIE.

Cells (3,3), (4,4)

TO DETERMINE THE FEASIBILITY OF IMPACT EVALUATION OF PART A PROGRAMS AND PROJECTS AT THE STUDENT LEVEL.

Cells (6,6)

b. The Operational Analysis Plan. There was the need to implement a pre-analysis plan which included: (1) processing and editing of data; (2) correction and completion of the data file; (3) analysis of the quality of the data; and (4) variable generation. Three stages of edit were performed: (1) an on-site edit; (2) a coding and recording edit which took place prior to keypunching, and (3) a machine edit followed by an error resolution activity. The pre-analysis plan then specified the keypunching and verification of the data, the generation of a tape file from the data cards and the conduct of the machine edit.

The next stage of pre-analysis involved the correction and completion of the data file. Several techniques were used to obtain correct information for missing or erroneous information. Cost and convenience dictated the frequency of use of the different techniques. The OIE data base was used as a primary reference point to complete some responses. Item overlay -- between that data file and the data required for the evaluation -- was expected in regard to several mediating and independent variables, including some financial data, census data, and basic application data. The analysis plan was then designed to provide the description and determination of objective achievement through the interface of the areas of inquiry with the matrix of evaluation concerns.

To describe the funded projects, crosstabulations of the data file across stratification variables used in the selection of the sample was proposed. These crosstabulations utilized weights for national projections and unweighted sample data. The stratification variables included the ten geographic regions, the size of grant strata, and the type of district (urban/density) classification.

To describe the interface of the funding conditions with the funded projects, six cross tabulations were used. They include:

- project objectives crosstabulated with sources used in the needs assessment;
- project objectives crosstabulated with criteria to pick eligible students;
- project objectives crosstabulated with parent committee activities;
- percentage of participation crosstabulated with sources used in the needs assessment;
- percentage of participation crosstabulated with criteria to pick eligible students; and
- percentage of participation crosstabulated with parent committee activities.

To describe the interface of funding level with the funded projects, two types of analyses were required. First, descriptive analyses were made in terms of crosstabulations of project and district characteristics across levels of funding. Second, ANOVA comparisons of project data were made in an attempt to ascertain if a minimum size grant is appropriate. This analysis involved the comparison of participation, cost, and effectiveness data on projects between different levels of funding.

To describe the interface of target setting with the funded projects district characteristic data were crosstabulated with objectives and project descriptive information. Particular attention was paid to the interaction of district size and density of Indians.

To describe the interface of Indian needs to funded projects, a crosstabulation of needs data were made with project descriptions. Attention was focused upon the inferred appropriateness of project activities to type of needs and their priorities.

To describe the interface of funded projects with measures of effectiveness required a series of different analyses.

Seven analytic components were identified to support the Office of Education in decision making. They included: (1) the interface of funding conditions with target setting; (2) the interface of funding conditions with identified Indian needs; (3) the interface of funding conditions with measures of project outcomes; (4) the interface of funding level with project setting; (5) the interface of funding level with project outcomes; (6) the interface of target setting with project outcomes; and (7) the interface of Indian needs with project outcomes. These seven analytic components dealt with issues which were identified through interviews with federal officials relative to information needed to modify enabling legislation.

To describe the interface of funding conditions with target setting, information upon the differences of grant requirements to different districts was provided. Information on funding conditions involved the processes required to establish the eligibility of a district, the determination of entitlement, the making and review of applications, the establishment and involvement of the parent committee, the meeting of reporting requirements and the conduct of project evaluation. Target setting variables included, but were not limited to, the population density and dispersion of Indian students, the fiscal and educational capability of districts, and size of districts. Several questions arose concerning the suitability of some of the funding conditions for particular districts. The following crosstabulations were used:

- needs assessment sources with community size, population density of Indians;
- degree of urbanization and socioeconomic status variables; and
- parent committee activities with community size, population density of Indians, degree of urbanization, and socioeconomic status variables.

To describe the interface of funding conditions with identified Indian needs required the investigation of different need configurations to processes used to satisfy funding conditions. The primary descriptive question was how needs assessment procedures related to the needs that were identified by them. The primary test of the relationship between needs assessment and needs analysis results came with the comparison of locally identified needs to the other sources of needs information. A foundation for this analysis was formed by crosstabulating local needs assessment sources to the reported local needs. Additional information was brought with the analysis by the information gained where needs assessment sources were crosstabulated with district setting variables, especially the variable, size of project.

To describe the interface of funding conditions with measures of project outcomes was perhaps the most important decision-making data. Parent committee activities were crosstabulated with both the types of measures and the results of those measures of project outcomes. The first crosstabulation indicated the role that the community played in gaining objective evaluative data. The second crosstabulation offered some information on the association of parent committee involvement with project effectiveness.

To describe the interface of funding level with project setting permitted an analysis of targeting and the need for minimum level funding. Earlier, the average size of grants was calculated for specific types of projects and analyzed relative to project descriptors. This size of grant variable was transformed into a nominal variable containing three categories; below $10,000, $10,000 to $50,000; above $50,000. This new size of grant variable was then crosstabulated with district data, including variables describing demographic characteristics, educational characteristics and project characteristics.

The interface of funding level with project outcomes was already handled in previous analyses, except for an analysis with test scores. In the further analysis it, therefore, became necessary to develop an achievement variable which could provide information about a majority of the projects for the national evaluation. A categorization of relative degree of success in achieving such objectives appeared useful in addressing the problem of how effective such projects were, and ultimately, in addressing differences in project effectiveness which might have been attributable to differences in funding level. This variable had three categories: (1) evidence of success on most achievement or skill-development activities; (2) evidence of success on some, but not most, achievement or skill-development activities; and (3) little evidence of success on achievement or skill-development activities. Projects, not including achievement or skill-development activities, were not included in this analysis. The projects to be included were subjected to a multiple regression analysis using amount of funding in IEA, amount of other federal funds, number of students participating, percentage of IEA funds spent upon instructional staff as predictor variables.

The second set of outcome measures to be investigated in regard to size of grant were the reported attitude measures. Again, because of differences in scales used and in project related content, a variable that depicts attitude holding associated with the IEA projects was developed. It should be noted that many of the projects reported the results by comparing attitude scales in their evaluations, and this analyses proposed to gather these data from the evaluation reports. Since attitude scales seldomly tend to produce results showing negative attitudes, it was suggested that projects in which more than two-thirds of the participants showed positive attitudes be considered positive and the remainder considered negative. Projects then could be dichotomized into two groups in accordance with the attitude variable, and a regression analysis using size of grant, number of participants, and amount of federal programs as predictor variables could be applied.

The interface of target setting with project outcomes then showed if district characteristics were related to outcomes. The dichotomous success at skill-development variable and the dichotomous attitude classification variable both were crosstabulated with selected demographic and stratification variables. A MANOVA was applied to ratings of project success classified across the stratification of reporting variables describing participating districts.

The interface of Indian needs with project outcomes dealt with the question of topic thrusts in the program. Each of the needs categories investigated in the needs assessment were used to form a basis for categorizing projects. This variable then was crosstabulated with the achievement or skill development variable and the attitude measurement variable.

The analysis plan did provide for a look at the needs of Native Americans by being structured to provide frequencies of needs for different types of districts. Hence, the stratification variables were crosstabulated with the collected needs data.

With regard to the feasibility of future impact evaluations, CTC found that the present configuriation and operation of the Title IV, Part A projects does not lend itself to an impact evaluation. Impact evaluation of any program is an attempt to discern differences between children who had received a federally sponsored education activity and those who had not received that activity in regard to a measure of basic educational output. The measure of educational output was usually a standardized achievement test in reading and mathematics given academic goals.

In the case of IEA Part A, it is highly unlikely that the law was intended directly to effect achievement in a given area. Yet impact must be tied to educational goals. These ties may be made through perceived progress or through the analysis of achievement scores.

Impact evaluation of IEA could be made through several models of potential IEA Part A impact definitions. The models discussed can be divided into three major characteristics based upon data collection requirements, namely: (1) those models which depend upon archival achievement data; (2) those models which depend upon needs assessment survey data, and (3) those models which depend upon multi-source rating of project effectiveness or worth.

Two different models using data which most probably were available in archives appear to have potential. The first of these is the research study summary procedure investigated by Glass, which was described earlier in the plan to determine effectiveness of projects. From one point of view, this model does generate a common metric difference between groups (treatment vs. control) expressed by the percentage of standard score deviation. On the other hand, the model does not present a uniform set of scores across all projects. Scores are developed within objectives and the controls are within LEA's, not allowing any cross-comparisons with non-participating LEA's. Hence, the "common" metric applies only to projects with common objectives. If, in fact, an adequate overlay of objectives can be shown and if an impressive number of projects can be kept in the analysis, this model appears to be a very desirable impact evaluation model, in that it produces data relevant to the goals of the projects being studied, it provides an operational definition of impact based upon the topic or content area being studied, and it provides a simple test of significance easily interpreted but not requiring common tests across projects.

The next category of potential models involved the basis of impact upon assessed needs. There appear to be several ways in which impact evaluations can be designed using either national or local data. Perhaps the most appealing way that impact evaluation can be fixed to relate to the law in a current common-metric model involves the yearly (or maybe biennial, depending upon data requirements) administration of a national needs assessment. Since it would be probable that the assessed needs would be collected from a matrix establishing the range and subdivisions of the topics assessed, either the analytic model would be required to be multivariant and utilize more than one dependent variable, or each analysis would have to be repeated for each cell of the matrix, thus disturbing the probability model employed and making interpretation impossible. Factor or cluster analyses might be used to reduce the number of dependent variables to be analyzed, hence to reduce the complexity of the multivariant design. In designing the model, the reporting variables and the treatment designator variable should form classifications for the MANOVA serving as independent variables; needs information and wealth of district would serve as covariables or mediating variables. In utilizing this model, impact is trended in the same sense as was implied by the law and the model handles the discretionary nature of the Act by providing a basis of analysis over all needs.

The last model to be discussed had the most political feasibility but the least educational potential: it involved the use of multiple constituency ratings of project effectiveness. To date, little is known concerning the composition or validity of ratings. Ratings tend to be overly favorable, limited in information, and subject to influence of both personality and values. The opportunity to rate a project or a given set of activities usually provokes support and warm feeling from the rater. Unfortunately, it is difficult to control or to avoid contamination of the rating by personal matters or inappropriate timing. In the case of IEA Part A, project ratings can be collected from LEA administrators, LEA teachers, IEA Project Director, IEA staff, parent committee members, and even when desirable, Indian students. Each rating can be taken on a very similar multiple-item rating scale or from responses made to the key question: was the project successful? Each rating, according to source, can then be considered as a dependent variable and entered into MANOVA as multiple (one for each source used) dependent variables. This MANOVA model can accommodate several classifications; probably the sampling strata, project objectives, and fiscal data can be used as independent variables. The model can be reduced from a MANOVA to an ANOVA if it appears advantageous to factor analyze the ratings, thus reducing the ratings down to one or at most two variables.

Two key questions were addressed in the segment of the analysis plan that dealt with the eligible unfunded districts. The first key question was to delineate the reasons for non-participating districts choosing not to participate. This analysis required a simple frequency tabulation of responses. The second question to be addressed was the differences in needs information. A crosstabulation was used for each needs item to compare participating and non-participating districts.

The purpose of the analytic effort in the area of the ONAP needs survey was to determine if an Indian stream of input indicated needs profiles different from a school district stream of input. Frequencies for ONAP data, participating school district data and non-participating school district data was visually compared for differences in need.

3.1.4 Instrumentation

The instrumentation developed and field tested during the formative design phase of the Study was comprised of: (1) Project Director Interview Guide; (2) Project Staff Questionnaire; (3) Office of Native American Program Needs Assessment Survey; (4) Parent Committee Interview Guide; (5) LEA Information Package; (6) Pupil Data Retrieval Form, and, (7) Non-Funded Site Questionnaire. The use of these instruments was as follows:

Project Director Interview Guide - administered to the Project Director (1).
Project Staff Questionnaire - administered to a maximum of four (4) staff.
Office of Native American Needs Assessment Survey - to be administered to ONAP grantee (1).
Parent Committee Interview Guide - administered to a maximum of two (2) members.
LEA Information Package - administered to appropriate LEA personnel (1).
Data Retrieval Form - administered to appropriate LEA personnel (1).
Non-Funded Site Questionnaire - administered to Superintendent of Schools (1).

3.1.5 Data Collection

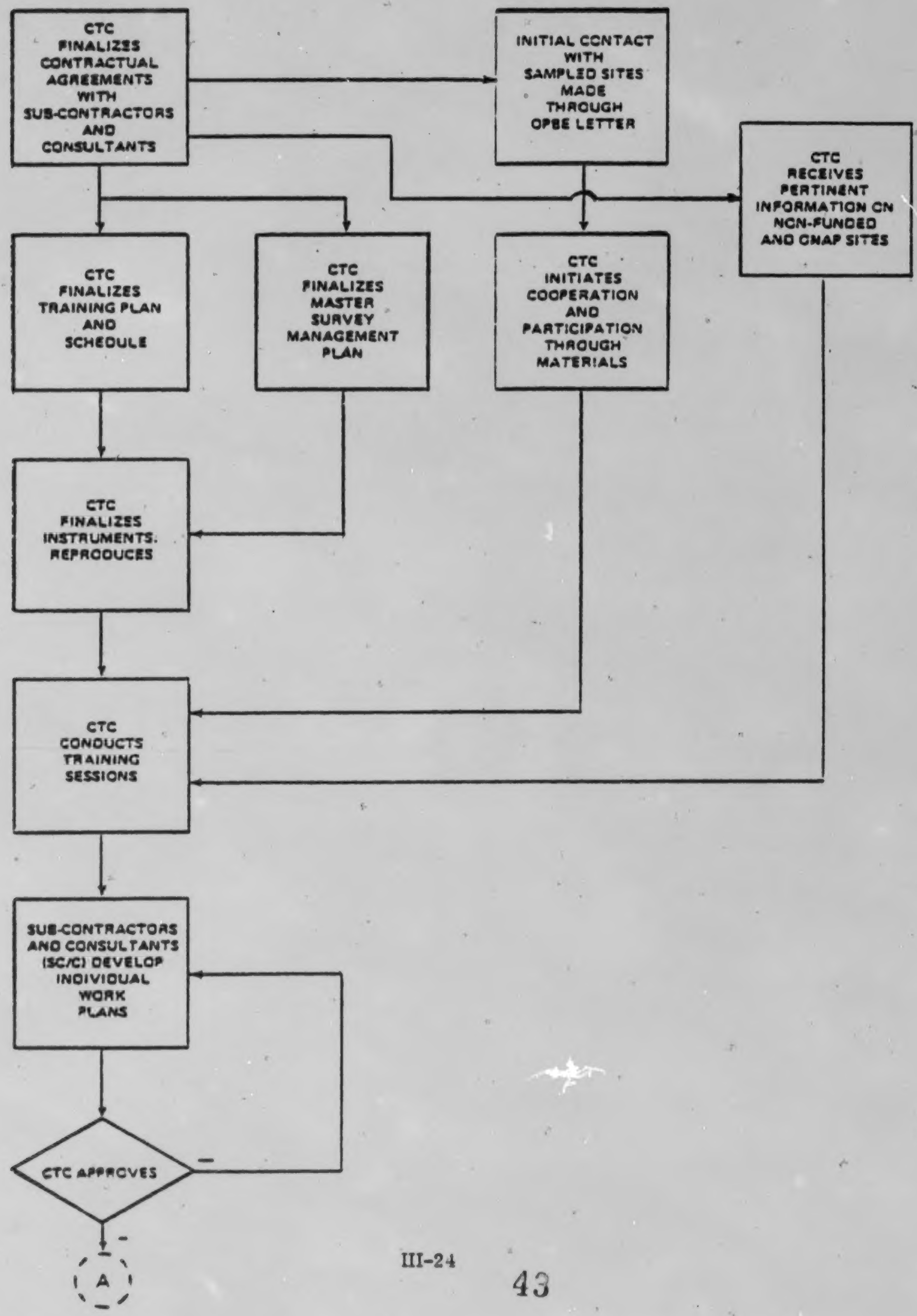
In order to effectively and efficiently conduct data collection activities at the sampled funded, sampled unfunded, and sampled ONAP Centers, CTC developed and monitored a detailed survey management plan. This survey management plan outlined in "step fashion" the activities which were conducted by Communication Technology Corporation (CTC) and its sub-contractors/consultants (SC/C) during the data collection effort (Phase II). This plan incorporated a "lead person" concept by the sub-contractors in order to clearly establish lines of communication, scheduling, logistics, distribution and collection of data collection instruments. It also outlined the overall plan for CTC to effectively manage and monitor the efforts of the sub-contractors as they implemented the data collection.

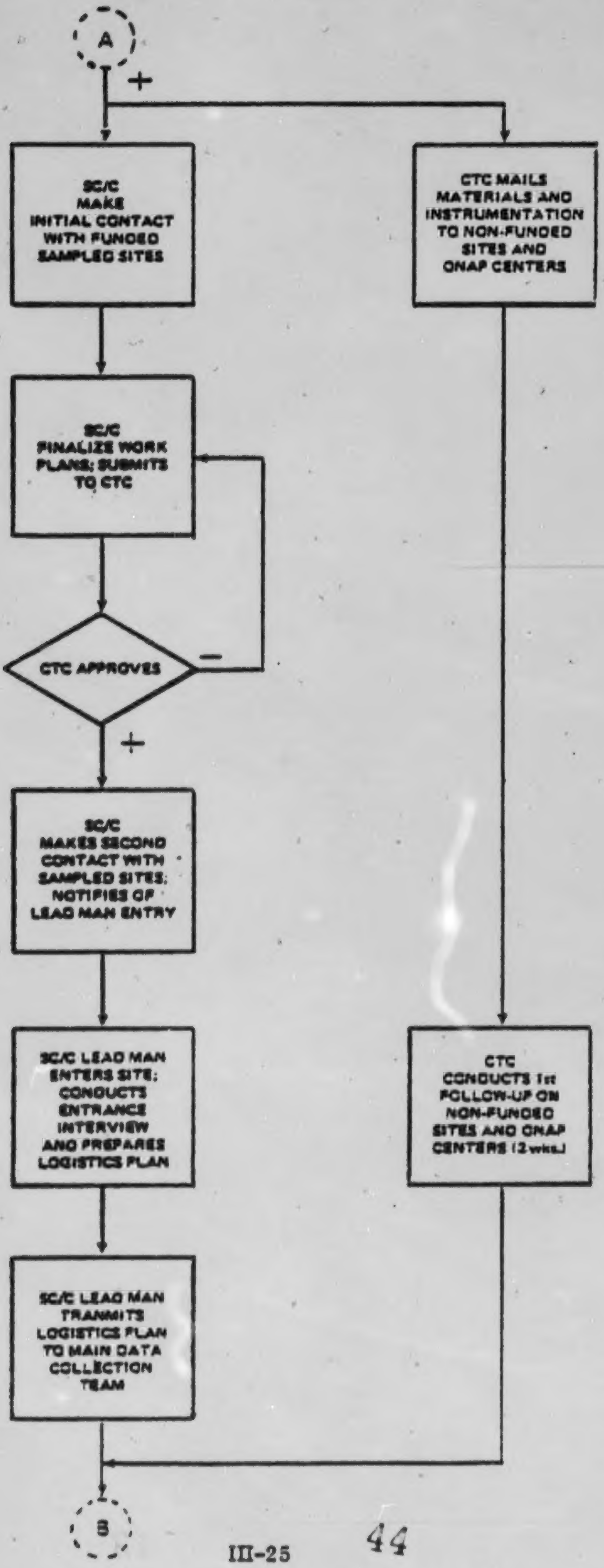
Sub-contractors and consultants were selected and contracted with, based on a series of criteria, not the least important of which was their culturally matching (as closely as possible) the respondents in the sampled local education agencies (LEA's).

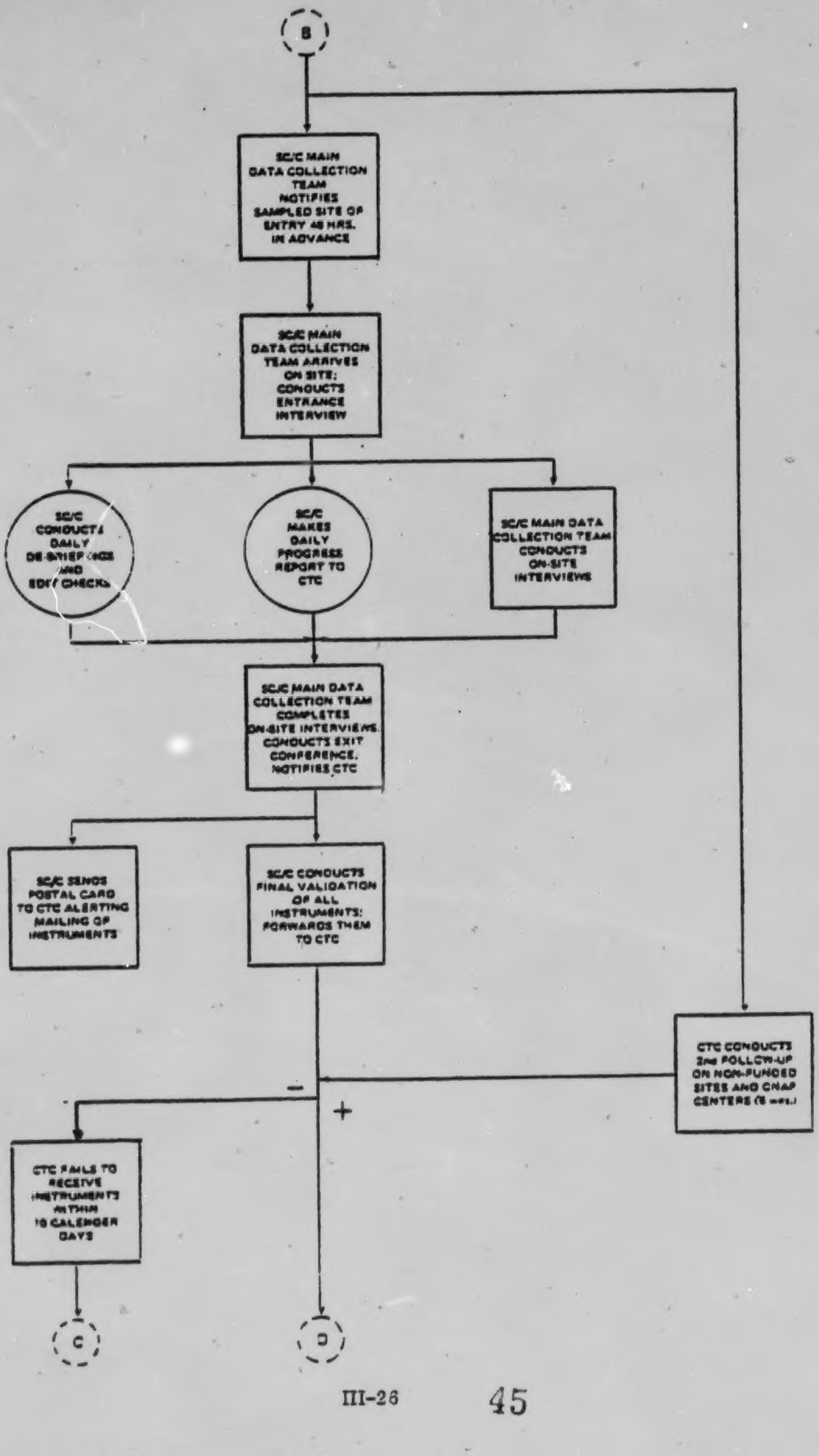
After selection of the sub-contractors, an intensive training effort was conducted. Training included interview methodology as well as the content of the data collection instruments.

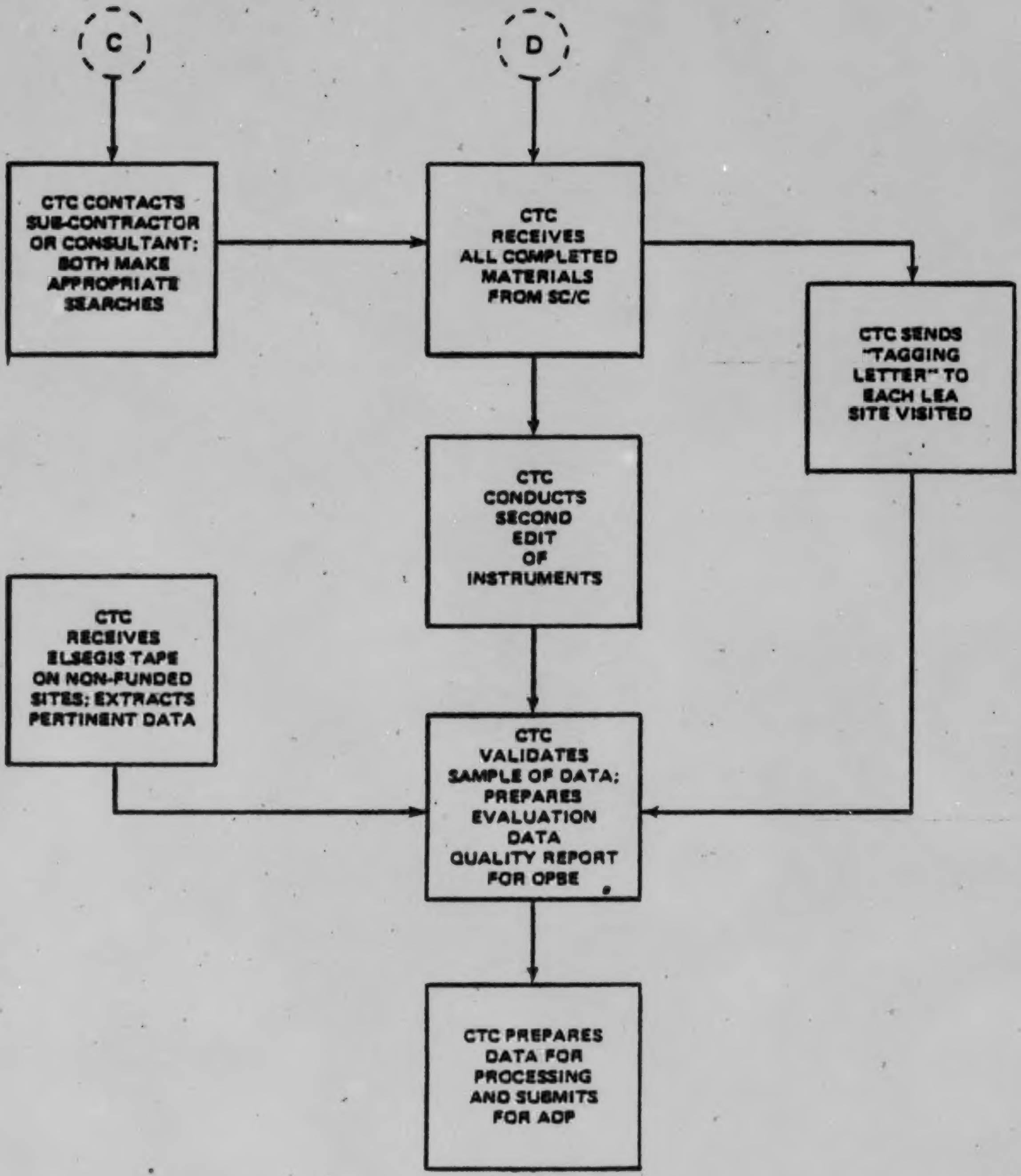
The following schematic represents the activities implemented during the data collection effort.

EXHIBIT III-1
SURVEY MANAGEMENT PLAN


CTC FINALIZES CONTRACTUAL AGREEMENTS WITH SUB-CONTRACTORS AND CONSULTANTS
INITIAL CONTACT WITH SAMPLED SITES MADE THROUGH OPBE LETTER
CTC RECEIVES PERTINENT INFORMATION ON NON-FUNDED AND CNAP SITES
CTC FINALIZES TRAINING PLAN AND SCHEDULE
CTC FINALIZES MASTER SURVEY MANAGEMENT PLAN
CTC INITIATES COOPERATION AND PARTICIPATION THROUGH MATERIALS
CTC FINALIZES INSTRUMENTS: REPRODUCES
CTC CONDUCTS TRAINING SESSIONS
SUB-CONTRACTORS AND CONSULTANTS (SC/C) DEVELOP INDIVIDUAL WORK PLANS
CTC APPROVES
—
A


A
+
SC/C MAKE INITIAL CONTACT WITH FUNDED SAMPLED SITES
CTC MAILS MATERIALS AND INSTRUMENTATION TO NON-FUNDED SITES AND ONAP CENTERS
SC/C FINALIZE WORK PLANS; SUBMITS TO CTC
CTC APPROVES
−
+
SC/C MAKES SECOND CONTACT WITH SAMPLED SITES; NOTIFIES OF LEAD MAN ENTRY
SC/C LEAD MAN ENTERS SITE; CONDUCTS ENTRANCE INTERVIEW AND PREPARES LOGISTICS PLAN
CTC CONDUCTS 1st FOLLOW-UP ON NON-FUNDED SITES AND ONAP CENTERS (2 wks.)
SC/C LEAD MAN TRANMITS LOGISTICS PLAN TO MAIN DATA COLLECTION TEAM
B


B
SC/C MAIN DATA COLLECTION TEAM NOTIFIES SAMPLED SITE OF ENTRY 48 HRS. IN ADVANCE
SC/C MAIN DATA COLLECTION TEAM ARRIVES ON SITE; CONDUCTS ENTRANCE INTERVIEW
SC/C CONDUCTS DAILY DE-BRIEFINGS AND EDIT CHECKS
SC/C MAKES DAILY PROGRESS REPORT TO CTC
SC/C MAIN DATA COLLECTION TEAM CONDUCTS ON-SITE INTERVIEWS
SC/C MAIN DATA COLLECTION TEAM COMPLETES ON-SITE INTERVIEWS, CONDUCTS EXIT CONFERENCE, NOTIFIES CTC
SC/C SENDS POSTAL CARD TO CTC ALERTING MAILING OF INSTRUMENTS
SC/C CONDUCTS FINAL VALIDATION OF ALL INSTRUMENTS; FORWARDS THEM TO CTC
CTC CONDUCTS 2nd FOLLOW-UP ON NON-FUNDED SITES AND CNAP CENTERS (8 WKS.)
–
+
CTC FAILS TO RECEIVE INSTRUMENTS WITHIN 10 CALENDER DAYS
C
D


C
D
CTC CONTACTS SUB-CONTRACTOR OR CONSULTANT: BOTH MAKE APPROPRIATE SEARCHES
CTC RECEIVES ALL COMPLETED MATERIALS FROM SC/C
CTC SENDS "TAGGING LETTER" TO EACH LEA SITE VISITED
CTC CONDUCTS SECOND EDIT OF INSTRUMENTS
CTC RECEIVES ELSEGIS TAPE ON NON-FUNDED SITES; EXTRACTS PERTINENT DATA
CTC VALIDATES SAMPLE OF DATA; PREPARES EVALUATION DATA QUALITY REPORT FOR OPBE
CTC PREPARES DATA FOR PROCESSING AND SUBMITS FOR ADP

SECTION IV

FINDINGS AND DISCUSSION

4.1 OVERVIEW

The presentation and discussion of the findings of the study will be organized first by contract objectives and second by analytic issues addressed. Only the most descriptive and direct analyses will be reported in the body of the final report. The remainder of the analyses will be included in the appendices, but will be only referred as necessary in the report. Hence, a definite attempt will be made to limit the data analysis tables to only the most relevant ones. Discussion of the findings will be reported primarily in the conclusions. Analysis of the tables will be limited to key information gleaned from the tables. Convergence of the analyses into an analytic framework of inquiry will be made in the discussion of conclusions rather than in the reporting of the findings.

In the pages which follow, references have been made to specific tables. In order to preserve the continuity of this section and to ease the burden of reading, these tables have been included, in sequential order, in technical appendages to the Final Report. However, the discussion of the appropriate tables have been included in the applicable places throughout this section.

4.1.1 Summary by Project Objectives

Objective 1: To Describe and Determine the Effectiveness of Current Projects Funded Under Part A

Project objectives included those dealing with cultural heritage, native language instruction, remedial reading, counseling and guidance, self-concept development, and improvement of attitudes toward school. Program objectives did not appear to differ over the urban-density variable. Some regional differences in program objectives were found across the cultural regions although the variation was not systematic across any type of program. Projects funded at below $10,000 levels tended to have narrower emphasis and fewer objectives.

There appeared to be no predominant method of needs assessment and needs did not appear to differ across either types of assessment or participants in assessment. The parent committee was reported to have been involved in:

(1) staffing recommendations in over 80% of the districts;
(2) curriculum decisions in 64% of the districts;
(3) selection of pupils for Part A project participation in over 67% of the districts;
(4) public relations in 67% of the districts;
(5) proposal development in 92% of the districts;
(6) budget review in 92% of the districts;
(7) assistance in instruction in 50% of the districts;
(8) conduct of needs assessments in 86% of the districts;
(9) proposal review in 94% of the districts;
(10) establishment of objectives in 93% of the districts;

(11) project monitoring in 81% of the districts;
(12) project evaluation in 84% of the districts; and
(13) final report preparation in 80% of the districts.

Ratings of project effectiveness were generally associated with high parent committee involvement, multiplicity of objectives, and density of Indians. There was no association of project effectiveness with regions or with needs assessment methodology. Reading programs were rated effective in overcoming academic difficulties in 89.5% of the districts, were rated as supplementary services in 92.6% of the districts, were credited with the improvement of attitudes toward school in 93.6% of the districts and were reported to have developed more favorable self-concepts in 98.7% of the districts. Mathematics programs were rated effective in overcoming academic difficulties in 89.2% of the districts, were rated as supplementary services in 94.1% of the districts, were credited with the improvement of attitudes toward school in 93.4% of the districts, and were reported to have developed more favorable self-concepts in 96.1% of the districts. Programs involving cultural heritage objectives were rated effective in overcoming academic difficulties in 85.8% of the districts, were rated as supplementary services in 92.2% of the districts, were credited with the improvement of attitudes toward school in 93.0% of the districts, and were reported to have developed more favorable self-concepts in 98.0% of the districts. Counseling and guidance programs were rated as effecitve in overcoming academic difficulties in 85.5% of the districts, were rated as supplementary services in 91.3% of the districts, were credited with the improvement of attitudes toward school in 93.2% of the districts and were reported to have developed more favorable self-concepts in 98.3% of the districts. Programs with attendance objectives were rated as effective in overcoming academic difficulties in 90.3% of the districts, were rated as supplementary services in 93.6% of the districts, were credited with the improvement of attitudes toward school in 93.9% of the districts and were reported to have developed more favorable self-concepts in 98.3% of the districts. Programs with self-concept development objectives were rated effective in overcoming academic difficulties in 88.2% of the districts, were rated as supplementary services in 93.3% of the districts, were credited with the improvement of attitudes toward school in 93.2% of the districts and were reported to have developed more favorable self-concepts in 97.6% of the districts. Programs which had objectives toward the development of self-direction were rated effective in overcoming academic difficulties in 88.7% of the districts, were rated as supplementary services in 93.5% of the districts, were credited with the improvement of attitudes toward school in 93.9% of the districts and were reported to have developed more favorable self-concepts in 97.6% of the districts. Programs having objectives to improve school attitudes were rated effective in overcoming academic difficulties in 88.5% of the districts, were rated as supplementary services in 93.1% of the districts, were credited with the improvement of attitudes toward school in 93.6% of the districts and were reported to have developed more favorable self-concepts in 93.5% of the districts.

Objective 2: To Provide Information to Support the Office of Education in Planning and Grant Administration

Needs assessment methodology, sources and results do not appear associated with project type, parent committee participation, project effectiveness, or project impact. Targeting percentages were calculated on the basis of need and objective match or on no need and no objective match. The targeting percentages for programs were: reading 64%, mathema-

tics 49%, bilingual 68%, special education 56%, guidance and counseling 58%, attitudes toward school 54%, self-concept development 59%, attendance 52%, self-direction 48%, attitudes toward peers 56%, personal ambition 43%, industrial education 60%, agricultural education 48%, business education 35%, domestic education 34%, health services 46% and psychological services 45%.
The use of a minimum level of funding should be examined since programs under $10,000 were generally rated less effective and tended to entertain fewer objectives. Parent committee involvement should be continued as a funding condition since it was associated with project effectiveness.

Proposal, funding and project implementation cycles must be increased in alignment due to reported problems in project staffing and planning. OIE project monitoring was reported as needing significant increases in availability. The participation of non-Indians in certain programs were included as reasons for non-participation and for low effectiveness ratings in staff and attitude changes in favor of Native Americans. Small districts reported design problems across grade levels.

Objective 3: To Study the Feasibility of Impact Evaluation

Three research models were applied to test the feasibility of impact evaluation. They were (1) the Glass model of meta-analysis to summarize separate studies empirically, (2) a MANOVA model based upon field judgment by project staff and by parent committee members, and (3) an ANCOVA model based upon pupil achievement data and participation in project objectives. Although no significant differences were found in the application of the Glass model, slight positive differences were found for the reading program and slight negative differences for the mathematics program. Only about forty percent of the districts had achievement scores at grades 4, 7 and 12. Only one-sixth of the districts had usable scores at grade 4; one-seventh at grade 7 and only 4 districts at grade 12. Given the relative success in the larger group of districts, it could be hypothesized that with a more complete data bank, more equivalent comparison groups on pretest, and controlled mandated testing, an achievement test in reading could be found to make impact evaluation feasible. There was not as much promise in mathematics.

Significant program rating effects were found in reading and self-concept development projects but were not found in mathematics in the MANOVA tests. In the ANCOVA model the absence of data and the pretest differences of groups prevented the finding of significant results. The finding of potential reading effects in two of the three tests provide some hope for the feasibility of impact evaluation in reading.

4.2 FINDINGS AND DISCUSSION

4.2.1 To Describe and Determine the Effectiveness of Current Projects Funded Under Part A

Six analytic components were planned in order to describe the IEA Title IV Part A Program in terms of its projects. Within each of these components several cross-tabulations of project descriptors with stratification variables will be reported both in terms of weighted and unweighted data. The findings will be discussed within these components.

Description of the Funded Projects

The information in this section is delineated and presented in a twofold manner, e.g., a Summary Description and a Detailed Description. The Summary Description contains a synthesis of the highlights of the data presented in the section. The Detailed Description represents a thorough discussion of the analyzed data collected by means of the survey instruments employed in this study. The conclusions from this section, although alluded to in the Summary Description, are derived from the data presented in the Detailed Summary.

Summary Description

The three stratification variables used in the sampling design included variables designating: (1) region based upon geography and culture; (2) school district location in relation to rural/urban and density of Indian population; and (3) grant size. The six descriptors used across the stratification levels include: (1) objectives of the project; (2) activities of project staff; (3) project emphases; (4) non-instructional services; (5) instructional expenditures, and (6) parent committee activities. A summary of the data for these six descriptors is presented in the following paragraphs.

Twenty-five different objectives embracing the cognitive and affective domains in the areas of remedial academic services, vocational skills, academic enrichment and health services were used to classify the project intent.

Project objectives in the cognitive domain which received the greatest attention were those dealing with cultural heritage, native language and remedial reading.

Project objectives in the affective domain which received the greatest attention were those dealing with counseling and guidance, self-concept and attitudes toward school.

Most of the project objectives seemed to be evenly distributed across the urban/rural density variable.

Thirteen project objectives appeared to have proportionate emphasis across grant levels. However, no predominant objectives existed in funding levels below $10,000. General remedial academic work was the predominant objective in the funding levels between $10,000 and $50,000.

In the area of non-instructional services, 20% of the districts provided some medical/dental services to Indian children through Title IV, Part A; 18% of the districts provided some psychological services, and 9% of the districts provided other non-instructional services to Indian children. The Southeast and Pacific Northwest appear to be areas where the greatest need for non-instructional services is perceived by school districts.

The project staff activity profile nearly replicates the objective profile in that the majority of the school districts reported their staff working in the areas of self-concept improvement, attitude toward school, student responsibility development and self-direction, development of personal ambition, attitude toward peers, cultural heritage, remedial reading, counseling and guidance, and attendance. The Alaskan region displayed the greatest amount of staff non-involvement in the areas of self-concept, attitude toward school, cultural heritage and counseling and guidance.

Rural low density districts with small staff showed a great deal of non-involvement in the majority of the areas mentioned above. Similarly, districts with grant levels below $10,000 showed a great deal of non-involvement of staff members.

A cross tabulation with urban/rural, density variable and the grant size variable revealed that over half of the projects have their staff involved in classroom-type projects, with the greatest amount of involvement in rural, high density districts. Likewise, the greatest amount of skill development-type instruction appears to occur in rural high density districts receiving funds of $10,000 or more. The field-based type of instruction occurred primarily in rural high density districts in projects funded over $50,000.
Rural districts with substantial funding reported the highest student participation.

The types of parent committee involvement reported by the vast majority of the districts was in the areas of providing staffing recommendations, proposal review and development, budget review, needs assessment, establishment of objectives, project monitoring and evaluation, and final report preparation.

The following section presents a detailed description of the funded projects included in this study.

Detailed Description

Three stratification variables were used in the sampling design because each could be hypothesized to delineate differences in either Indian needs or Part A projects. These variables included: (1) a variable designating region based upon geography and culture; (2) a variable designating school district location in regard to rural/urban and in regard to density of Indian population; and (3) a variable designating grant size.

The region variable was comprised of ten categories. They were (1) Alaska; (2) Pacific Northwest (Oregon and Washington); (3) Pacific Southwest (California and Nevada); (4) Rocky Mountain (Colorado, Idaho, Montana, Utah, and Wyoming); (5) Interior Southwest (Arizona and New Mexico); (6) North Central (Illinois, Michigan, Minnesota, and Wisconsin); (7) Upper Midwest (Nebraska, North Dakota and South Dakota); (8) Central Southwest (Kansas, Oklahoma and Texas); (9) Southeast (Florida and North Carolina); and (10) New England (Maine and New York). The variable designating school district location was made up of three categories. They included: (1) Urban; (2) Rural High Density; and (3) Rural Low Density. The grant size variable was also made up of three categories. They included: (1) grants over $50,000; (2) grants above $10,000, but equal to or below $50,000; and (3) grants equal to or below $10,000.

Six descriptors were chosen to describe the Part A projects across these stratification variables. These descriptors include: (1) objectives of the project; (2) types of activities performed by project staff; (3) percentage of time of different project emphases; (4) project provision of non-instructional services; (5) percentage of project expenditures made on instructional services; and (6) parent committee activities.

In the analysis of the objectives, twenty-five different objectives were used to classify project intent. Since many projects included more than one of the twenty-five classifications of objectives; the analysis focused simply upon the entertainment of a given objective. The classifications of objectives include:

COGNITIVE DOMAIN

Remedial Academic

1. Reading
2. Mathematics
3. Bilingual (including ESL)
4. Special Education
5. Other remedial academic services

Vocational Skills

6. Industrial
7. Agricultural
8. Business
9. Service Occupations
10. Domestic (e.g., consumer ed., home economics, etc.)
11. Other vocational skills

Academic Enrichment

12. Native American language or culture/heritage
13. Majority culture/heritage
14. Other academic enrichment skills

AFFECTIVE DOMAIN

15. Counseling and guidance
16. Attendance
17. Self concept/self image
18. Responsibility/self direction
19. Attitudes toward school
20. Attitudes toward peers
21. Personal ambition
22. Other affective domain services

HEALTH SERVICE DOMAIN

23. Medical/Dental
24. Psychological (e.g., child-study team screening, diagnostic testing, etc.)
25. Other health services

The national program can be described as a collection of projects of widely divergent size, geographic locale and goals. However, in the analysis of the accumulated project objectives three or four themes of emphasis can be seen. The IEA Title IV Part A Program shows (Table IV-1)* a major emphasis in projects which feature objectives directed toward the instruction of cultural heritage and native language (62% of the projects held this objective). Emphasis upon remedial reading remained high (58% of the projects). The next three most frequently entertained objectives fall in the affective domain. They are: (1) counseling and guidance (56%); (2) self concept (54%); and (3) attitudes toward school (51%). Other predominant objectives are attendance (47%), responsibility and self direction (46%) and remedial mathematics (46%).

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*Table(s) referenced appear in Appendix A of the Final Report of this Study.

Differences in project emphasis do exist regionally. Four regions appear to focus upon academically oriented objectives more than the other six regions. These regions are the Pacific Southwest, Rocky Mountain, North Central, and the Southeast. Three of these regions maintain both reading and mathematics as frequently mentioned objectives. For the Pacific Southwest the program could be characterized in terms of four objectives, namely: (1) reading (67%); (2) mathematics (64%); (3) cultural heritage (64%); and (4) self-concept (61%). The Rocky Mountain region can also be characterized by four objectives, namely: (1) reading (76%); (2) mathematics (69%); (3) self-concept (61%); and (4) cultural heritage (53%). The North Central region maintained three primary objectives, namely: (1) cultural heritage (56%); (2) reading (48%); and (3) mathematics (41%).

Three of the regions can be characterized as taking a primarily culturally oriented emphasis. These regions are Alaska, the Upper Midwest, and the New England regions, although the Upper Midwest actually is more of a conglomorate region. The Alaska region entertains four predominant objectives, namely: (1) cultural heritage (82%); (2) reading (47%); (3) self-concept (47%); and (4) responsibility and self direction (47%). The New England region can be described in emphasis in terms of two objectives, namely: cultural heritage (88%) and counseling and guidance (66%). The Upper Midwest region featured three objectives with equal frequency. These were cultural heritage (40%); reading (40%) and counseling and guidance (40%).

The remaining three regions appear to feature projects that are directed toward attaining objectives in the affective domain. These regions are the Pacific Northwest, the Interior Southwest, and the Central Southwest regions. All three of these regions have a large number of objectives which are frequently maintained by projects. The Pacific Northwest region has nine predominant objectives. They are: (1) self-concept (73%); (2) counseling and guidance (68%); (3) attitudes toward school (63%); (6) remedial reading (63%); (7) cultural heritage (57%); (8) personal ambition (57%); and (9) mathematics (57%). The Central Southwest can be characterized by a similar profile of nine objectives. They are: (1) self-concept (67%); (2) counseling and guidance (67%); (3) remedial reading (60%); (4) cultural heritage (60%); (5) attitudes toward school (57%); (8) attendance (52%); and (9) personal ambition (52%). The Interior Southwest has a profile of only eight objectives. They are: (1) attitude toward school (70%); (2) attitude toward peers (70%); (3) remedial reading (66%); (4) cultural heritage (66%); (5) counseling and guidance (66%); (6) self-concept (66%); (7) responsibility and self-direction (66%) and (8) personal ambition (59%).

Most of the objectives seem to be evenly distributed across the urban/rural density variable (Table IV-2).* Only eleven of the objectives appear to differ across this variable. Two of these objectives, remedial general academics and business, showed both an urban and a rural high density predominance. Six of the objectives; mathematics, special education, general academic enrichment, counseling and guidance, medical/dental services and other non-educational services, showed urban trends. Three of the objectives; industrial, agricultural, and service occupations showed rural trends.

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*Table(s) referenced appear in Appendix A of the Final Report of this Study.

In the analysis of differences in project objectives across grant size (Table IV-3)* thirteen objectives appeared proportionally distributed. No objectives were predominant in the projects which maintained funding levels below $10,000. This may be because of the fact that the small projects had to limit their intent to a single objective. One objective, general remedial academic services, showed a predominance in projects funded between $10,000 and $50,000. The objective dealing with agricultural skills was non-existent in small projects under $10,000. Ten objectives showed trends for projects with large levels of funding over $50,000. They include: (1) bilingual; (2) special education; (3) industrial; (4) business; (5) service occupations; (6) domestic; (7) Native American heritage; (8) counseling and guidance; (9) medical and dental services; and (10) other non-educational services.

Tables IV-4,* IV-5,* and IV-6* display the provision of non-instructional services across the three sampling stratification variables. Table IV-4* shows the provision of non-instructional services across the geographic regions. Approximately 20% of the districts provide some medical/dental services to Indian children through the sponsorship of Title IV, Part A. Almost 18% of the district provide some psychological services through the program and over 9% of the districts provide some other non-instructional services to Indian children. These services primarily include social work and family counseling.

Regionally, the Rocky Mountain region, the North Central region and the Southwest region represent districts in which medical/dental services are provided. Each of these regions provide these non-instructional services disproportionally to the rest of the nation. The Pacific Northwest, the Rocky Mountain, the Central Southwest and the Southeast regions contain a disporportionate number of districts providing psychological services through Part A funds. The Pacific Northwest and the Southeast regions contain a disproportionate number of districts providing other non-instructional services to Indian children. The Southeast and the Pacific Northwest appear to be areas where the greatest need for non-instructional services is perceived by school districts.

Table IV-5* displays the provision of non-instructional services across the urban/rural, high/low density variable. In regard to medical/dental services the urban school districts tend to be those which provide the most services. These districts represent only 27% of the sample, but make up nearly 40% of those districts providing medical/dental services. In regard to psychological services, the frequency of districts using Part A funds for provision are almost proportionally spread across the sample with a slight trend toward increased provision in the urban districts. This is similar for non-instructional services, except that the trend for increased provision is toward rural-low density districts.

Table IV-6* shows the provision of non-instructional services across the grant size variable. The provision of medical/dental services is almost proportionally distributed across the three categories of grant size. This proportional distribution is also present in the provision of other non-instructional services. Primary provision of these services is made by districts receiving grants of between $10,000 and $50,000.

*Table(s) referenced appear in Appendix A of the Final Report of this Study.

In order to increase the richness of the data file, a maximum of four project staff were interviewed at large project sites. Fewer staff were interviewed in smaller projects. Many small projects had no staff, other than the Project Director. In order to adequately describe the program, it appears useful to describe the types of activities in which project staff are involved. Because of the unequal number of staff interviewed, it is logical to describe the staff activities in regard to the districts which have no Part A staff involved in a specific activity. This mode of description will show what kinds of activities are not supported by Title IV funds. This information, when combined with the project objectives, can present a descriptive picture of the national program. Tables IV-7,* IV-8* and IV-9* report the staff activities variable cross tabulated with the three sampling variables (i.e., geographic region, density, and grant size).

Nationally, the staff activity profile nearly replicates the objectives profile reported in Table IV-1.* All but 62 districts are reported to have staff working in the area of self-concept improvement and in the area of improvement of students' attitudes toward school. The second area is a deviation from the objective profile, but does not represent an inconsistency in that the staff activities can be established to support other objectives. All but 73 districts are reported to have staff working in the areas of development of students' responsibility and self-direction and in the establishment of students' personal ambition. Again, both of these areas show increased activity over what could be inferred from the objectives profile. All but 74 districts are reported to have staff involved in the improvement of student attitudes toward peers. This represents a considerable increase in activity over what could be inferred from the objectives profile. All but 75 districts had staff employed in cultural heritage activities and all but 76 districts had staff involved in remedial reading. This represents a replication of the objectives profile. All but 85 districts contained Part A staff involved in two areas, counseling and guidance and attendance.

An analysis of activities across regions showed that most of the districts were proportionally distributed across regions in regard to non-involvement of staff. The North Central region displayed a large disporportion of districts with staff not involved in cultural heritage activities. There is an apparent contradiction in regard to the Alaskan region in that there are disproportional numbers of districts having staff not involved in four activity areas: (1) cultural heritage; (2) counseling and guidance; (3) self-concept; and (4) attitudes toward school. This may be the case because of the programs in the Alaska region employ less staff. On the other hand, however, an inconsistency in the data could exist.

In the cross tabulation of lack of staff involvement with the urban/rural density variable, fifteen of the frequencies were proportionately distributed. Ten of the variables were disproportionately distributed into the rural, low density districts. These include: reading, mathematics, cultural heritage, counseling and guidance, attendance, self-concept, responsibility and self-direction; attitudes toward school, attitudes toward peers and personal ambition. Most of the absence of staff activity in these areas is probably due to the small sizes of projects in the districts. A similar result was obtained when the absence of staff involvement variable was cross tabulated with size of grant. Thirteen variables were found to be proportionally distributed across the districts. Twelve were disproportionally distributed into districts having project grants of under $10,000. They

*Table(s) referenced appear in Appendix A of the Final Report of this Study.

include: reading, mathematics, general remedial academic activities, cultural heritage, counseling and guidance, attendance, self-concept, responsibility and self-direction, attitudes toward school, attitudes toward peers, personal ambition, and psychological services. Due to the similarity between this array of program activities and those found in the previous analysis (and because of the nature of the activities), it can again be hypothesized that this disproportion of distribution of staff activities can be attributed to the small size of the projects.

The types of instruction featured in the funded projects were cross tabulated with the urban/rural density variable and with the grant size variable. This program descriptor was not cross tabulated with region since there was no reason to expect differences across region. Only 27% of the funded districts reported that no classroom instruction occurred in their projects. Almost 10% of the districts reported that less than 20% of their project time was devoted to classroom instruction. Slightly more than 11% of the districts reported that between 20% and 40% of their project time was devoted to classroom instruction. Over 16% of the districts reported that between 60% and 80% of project time was devoted to classroom type instruction and 21% of the districts reported that between 80% and 100% of project time was devoted to classroom type instruction. Hence, over half of the projects can be classified as classroom type projects.

Table IV-10* illustrates a tendency for the classroom-type instruction projects to be predominantly in rural high density districts and for non-classroom-type projects to be disproportionally distributed in rural low density districts. Projects which feature a small percentage of time in classroom-type instruction (between 1% to 40%) are predominantly in urban districts. Projects which have between 1% to 20% time devoted to classroom-type instruction are predominantly in districts having projects funded at a level of over $50,000. Projects which contain between 20% and 60% time of classroom-type instruction are predominantly in districts receiving funding between $10,000 and $50,000. Projects which feature no classroom-type instruction are disproportionally distributed in districts receiving funding under $10,000 (Table IV-11).*

Almost 40% of the districts reported that no time was devoted to skill development-type instruction. Over 23% of the districts reported that between 1% and 20% of project time was devoted to skill development-type instruction. Another 18% of the districts reported that their projects devoted between 20% and 40% of the time to skill development-type instruction. Only 17% of the districts reported larger percentages of time devoted to this type instruction. Only about 75% of them could be classified as skill development projects.

The projects which tend to have the most emphasis on skill development-type instruction are more likely to occur in rural high density districts and in districts receiving funding for $10,000 or more.

Over one-half of the funded districts reported no field based activities and another 40% of the districts reported that they spent less than 20% of their project time in field-based instruction. The field-based type of instruction occurred primarily in rural high density districts and in projects funded for greater than $50,000.

*Table(s) referenced appear in Appendix A of the Final Report of this Study.

In previous evaluation efforts of Indian education projects, the percentage of funds spent on instruction was associated with the effectiveness of the projects in goal attainment. Only 6% of the districts reported that over 70% of their funds were spent on instructional activities. Nearly half of the districts spent 60% or less of their funds on instructional activities.

Patterns of expenditures appeared to be distributed proportionally across the regions (Table IV-12).* Similarly proportional distributions of expenditures were found across the urban/rural density variable (Table IV-13)*and across grant size (Table IV-14).*

Percent of participation is a variable which sometimes reflects project popularity. Unfortunately, 44% of the districts failed to report participation in such a manner that percent of eligible participation could be calculated. This failure was due to many of the districts having stop-in or center type programs which fail to allow an accurate count of participation. Of the districts reporting, almost 30% reported total participation and another 30% reported greater than 75% participation. The programs which report these high percentages of participation were primarily rural districts which have substantial funding (see Tables IV-15*and IV-16).*

One of the unique aspects of the Title IV, Part A Program is the role assigned to parent committees. Hence, one aspect of describing the program is to describe the activities of the parent committees in the design, operation and evaluation of the projects. The degree of parent committee involvement in program activities was measured on a scale of 1 to 5 ranging from no involvement to heavy involvement. To be involved at a significant level, a score of three or more was required. The funded districts reported that the parent committee was significantly involved in:

(1) staffing recommendations in over 80% of the districts;
(2) curriculum decisions in 64% of the districts;
(3) selection of pupils for Part A project participation in over 67% of the districts;
(4) public relations in 67% of the districts;
(5) proposal development in 92% of the districts;
(6) budget review in 92% of the districts;
(7) assistance in instruction in 50% of the districts;
(8) conduct of needs assessments in 86% of the districts;
(9) proposal review in 94% of the districts;
(10) establishment of objectives in 93% of the districts;
(11) project monitoring in 81% of the districts;
(12) project evaluation in 84% of the districts; and
(13) final report preparation in 80% of the districts.

In the cross tabulation of parent committee activities with the urban/rural density variable, parent committee activities which were proportionally distributed include: staffing recommendations, public relations, proposal development, budget review, conduct of the needs assessment, proposal review, establishment of objectives, project monitoring, project evaluation, and final report preparation. Four parent committee activities were disproportionally distributed. There was a predominance of districts with high participation in curriculum decisions and a lower frequency of districts in regard to the selection of pupils and in assistance in instruction. There was a predominance of districts having a high involvement of parent committee members in assisting in instruction. (Table IV-17)*

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*Table(s) referenced appear in Appendix A of the Final Report of this Study.

In the cross tabulation of parent committee activities with grant size all except one activity were proportionally distributed across funding levels. There was a lower frequency of districts allowing the parent committee to assist in instruction in districts receiving grants of over $5,000. (Table IV-18)*

Interface of Target Setting with the Funded Projects

Summary Description

There was a disporportionate distribution of districts in the urban stratum (over 50,000 enrollment), in the rural high density stratum (5001 to 20,000 enrollment), in the rural low density stratum (5001 to 20,000 enrollment) with objectives in the cognitive and affective domains.

Urban, high density districts (over 20,000 enrollment) reported very great staff involvement, especially in the following areas: reading, mathematics, native language and cultural heritage, counseling and guidance, attendance, self-concept, responsibility and self-direction, and attitudes toward school. Correspondingly, rural high and low density districts report staff involvement less frequently in these same areas.

Districts with a per pupil expenditure less than $1,000 focused their attention on the following objectives: general vocational skills, industrial and business vocational skill development, and psychological services. Districts with a per pupil expenditure ranging between $1,000 to $2,000 had a greater number of projects focusing on such objectives as: general remedial academic services, general vocational skills, general academic enrichment, medical/dental services, reading, mathematics, agriculture, business, service occupations, domestic occupations, attendance, attitudes toward school, attitudes toward peers and personal ambition. Districts with a per pupil expenditure over $2,000 were more likely to have projects with objectives in bilingual education and other affective domain areas.

Parent committee involvement appeared to be high in the following areas: public relations, proposal development, budget review, conduct of needs assessment, development of project objectives, project monitoring, project evaluation and final report preparation. Parent committee involvement appeared to be low in the following areas: staffing recommendations, curriculum decisions and instructional assistance.

The following sections contain a detailed description of the relationship of the target setting with the funded projects.

*Table(s) referenced appear in Appendix A of the Final Report of this Study.

Detailed Description

Two variables were used to define target setting. The first variable was a combined variable which included district size in regard to enrollment, urban/rural characteristics of the district and density (above or below 10%) of Indians. The second variable used to define target setting is per pupil expenditure. Thirteen (22.4%) of the urban districts could not be classified according to size. Eight (7.8%) of the rural high density districts could not be classified according to size and three (6%) of the rural low density districts could not be classified according to size. Hence, 11.2% of the sample did not respond to the enrollment question.

Five categories of district size were created, namely: (1) 1 to 300; (2) 301 to 5000; (3) 5001 to 20,000; (4) 20,001 to 50,000 and (5) over 50,000. In the urban group of districts, 5.2% were between 301 and 5000 in enrollment; 19.0% were between 5001 and 20,000; 29.3% were between 20,001 and 50,000 ;and 24.1% were over 50,000. In the rural high density group of districts, 4.8% were between 1 and 300, 79% were between 301 and 5000; and 8.6% were between 5001 and 20,000. In the rural low density group of districts, 2% were between 1 and 300; 56% were between 301 and 5000; 34% were between 5001 and 20,000 and 2% were between 20,001 and 50,000. Nationally, 3% of the funded districts have below 300 students; 60% fall between 301 and 5000; 19% between 5001 and 20,000; 10% between 20,001 and 50,000; and 7% have an enrollment over 50,000.

Project objectives were cross tabulated with the district setting variable (Table IV-19).* In the urban stratum, there were a disporportionate distribution of districts with over 50,000 enrollment which had project objectives in reading, mathematics, Native American cultural heritage, responsibility and self-direction, attitudes toward school, attitudes toward peers, personal ambition, medical/dental services, and other non-instructional services. Districts with between 5001 to 20,000 enrollment reported a larger frequency of medical/dental service objectives. In the rural, high density stratum, there were a disporportionate distribution of districts having an enrollment between 5001 and 20,000 which held objectives in mathematics, special education, agriculture, business, service occupations, domestic, other affective areas, medical/dental, and psychological services. Districts between 301 and 5000 enrollment maintained a higher frequency of objectives in bilingual, general remedial academic work, and general academic enrichment. In the rural low density stratum, there was disproportionate distribution of districts having an enrollment between 5001 to 20,000 which hold objectives in mathematics, industrial, agriculture, business, service occupations, domestic, self-concept, responsibility and self-direction, attitudes toward school, attitudes toward peers, other affective domain areas, and psychological services. Districts having an enrollment of 301 to 5000 maintained fewer objectives in mathematics.

Staff activities were also cross tabulated with this district variable (Table IV-20*). Eight of the most frequently reported project objectives were analyzed. They included: reading, mathematics, native language and cultural heritage, counseling and guidance, attendance, self-concept, responsibility and self-direction, and attitudes toward school. In regard to reading, urban districts which had enrollments between

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*Table(s) referenced appear in Appen[illegible] of the Final Report of this Study.

20,001 to 50,000 and above 50,000 reported higher frequency of staff involvement. Districts which were rural, low density districts with enrollment between 301 - 5000 reported a lower frequency of staff involvement in reading. These same district also were reported with lower frequency of staff involvement in mathematics. In regard to staff involvement in native language and cultural heritage activities, urban districts with enrollment between 301 to 5000 and rural, low density districts with enrollment between 301 and 5000 reported with less frequency, and urban districts with enrollment between 5001 and 20,000 reported with higher frequency. Staff involvement in counseling and guidance activities are reported less frequently in urban districts with greater than 50,000 enrollment and in rural, low density districts with enrollments between 301 and 5000. This staff involvement was reported more frequently in urban districts in rural, low density districts having enrollments between 5001 to 20,000. Rural, low density districts reported staff involvement in attendance objectives with less frequency. Staff involvement in activities designed to improve self-concept was reported more frequently by urban districts with enrollments greater than 500 and in rural, high density districts with enrollments between 300 and 5001. Rural, high density districts reported less staff involvement in self-concept directed activities. Staff involvement in activities directed toward the development of responsibility and self-direction were held more often by districts which are urban having enrollments between 20,000 and 50,000; rural, high density districts with enrollments between 300 and 5000; and rural, low density districts with enrollments between 5000 and 20,000. Staff involvement in activities to improve attitudes toward school was reported more frequently by urban districts having enrollments between 20,000 and 50,000; rural, high density districts with enrollments between 300 and 5000; and rural low density districts with enrollments between 5000 and 20,000. Rural, high density districts having enrollments of less than 300 and rural low density districts having enrollments between 300 and 5000 reported staff involvement in these activities less frequently.

On the per pupil expenditure variable, 15% of the district could not be classified, 1% had per pupil expenditures of less than $500, 5.2% had per pupil expenditures between $500 and $1000, 21.6% had per pupil expenditures between $1000 and $1500, 33.3% had per pupil expenditures between $1500 and $2000 and 23.9% had per pupil expenditures over $2000. Project objectives were cross tabulated with this variable (Table IV-21).* A disproportional number of districts with per pupil expenditures below $500 had projects with general vocational skill goals. Districts with per pupil expenditures between $500 and $1000 established projects which were more likely to contain objectives in industrial and business vocational skill development an in the offering of psychological services. Districts with per pupil expenditures between $1000 and $1500 had greater number of projects which contained objectives in general academic remediation, general vocational skills, general academic enrichment, medical/dental services and other non-instructional services. A disproportional number of districts with per pupil expenditures between $1500 and $2000 reported project activities in reading, mathematics, agriculture, business, service occupations, domestic occupations, attendance, attitudes toward school, attitudes toward peers and personal ambition. Districts with per pupil expenditures above $2000 were more likely to have projects with objectives in bilingual education and in other affective domain areas than the usual counseling and attitude change activities.

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*Table(s) referenced appear in Appendix A of the Final Report of this Study.

Staff involvement in the eight most frequently reported activities (reading, mathematics, native language and cultural heritage, counseling and guidance, attendance, self-concept, responsibility and self-direction, and attitudes toward school) across per pupil expenditure are reported in Table IV-22. All of the staff involvement areas appeared proportionally distributed across the per pupil expenditure variable.

Tables IV-23a* through IV-23n* report the results of cross tabulation of the per pupil expenditure variable with parent committee activities. The results of this cross tabulation indicate that:

(1) in staffing recommendations involvement was low for districts having per pupil expenditures between $1000 and $1500;
(2) in curriculum decisions involvement was low for districts having per pupil expenditures between $1000 and $1500;
(3) in selection of pupils responses were distributed proportionally;
(4) in public relations involvement was high in districts having per pupil expenditures between $500 and $1000;
(5) in proposal development involvement was high in all districts;
(6) in budget review involvement was high in all districts;
(7) in assisting in instruction involvement was low in districts having per pupil expenditures between $500 and $1000;
(8) in conduct of needs assessment involvement was high in all districts;
(9) in proposal review involvement was high in all districts;
(10) in establishing project objectives involvement was high in all districts;
(11) in project monitoring involvement was high in districts having per pupil expenditures below $1500 and proportionally distributed in the other districts;
(12) in project evaluation involvement was high in districts having per pupil expenditures below $1500 and proportionally distributed in the other districts;
(13) in final report development involvement was high in districts having per pupil expenditures below $1000 and proportionally distributed in the other districts; and
(14) in other committee activities involvement was generally high.

Interface of Indian Needs to Funded Projects

Summary Description

Seven categories of difficulties are categorized as contributing to the educational problems of Native American children. These categories are prioritized as follows with the greatest deficiency (top) to the least deficiency (bottom).

1. lack of motivation,
2. deficient early education,
3. adverse home environment,
4. negative peer group influence,
5. ethnic discrimination,
6. health problems, and
7. nutritional problems.

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*Table(s) referenced appear in Appendix A of the Final Report of this Study.

Detailed Description

The interface between Indian needs and funded projects actually occurred at the project design level, where the project developers elected to address certain needs through a given program activity. This interface is addressed in this report in two places, namely, under this subtopic interface of Indian needs to funded projects and later under the subtopic interface of Indian needs with project outcomes. In the latter, the interrelationship between needs and program objectives were matched on a one-to-one basis prior to being cross tabulated with project outcome variables.

Hence, because the reported results of the needs assessments were utilized in a latter analysis, a variable showing the translation of the needs information into deficiency factors which contributed to the educational problems of Native American children was cross tabulated with project objectives. This variable, called factors contributing to educational problems, included seven categories of need translation; namely: (1) lack of motivation; (2) deficient early education; (3) nutritional problems; (4) adverse home environment; (5) negative peer group influence; (6) ethnic discrimination; and (7) health problems. The objectives are the same 25 discussed previously. (Tables IV-24a* through IV-24g).*

In regard to lack of motivation, 69% of the districts reported this variable as a factor in the educational problems of Native American children with 18.3% reporting this condition as an extreme deficiency. Five project objectives were associated with the deficiency as major modes of address. They were: (1) remedial reading; (2) native language or cultural heritage; (3) counseling and guidance; (4) attendance; and (5) self-concept. Five other program activities were associated including: (1) attitudes toward school; (2) remedial mathematics; (3) responsibility and self-direction; (4) attitudes toward peers; and (5) personal ambition.

Deficient early education was considered a factor in the same manner and degree as lack of motivation. Again, 69% of the districts reported this deficiency as a factor and 18.3% reported it as an extreme contributor to the educational problems of Native American children. Two objectives represented the major mode of address; native language and cultural heritage, and counseling and guidance. Three other activities were associated, namely: remedial reading, attendance and attitudes toward school.

Fifty and two tenths percent (50.2%) of the districts reported nutritional problems as a contributing factor to the educational problems of Native American children with only 1.9% reporting it as an extreme factor. Only two program objectives appeared associated with the deficiency. They were bilingual education and agricultural education. The first objective appears to be setting or target related.

Adverse home environment was reported as a major factor. Seventy-five and one tenth percent (75.1%) of the districts reported this deficiency as a factor contributing to the educational problems of Native American children. Of these districts, 14.1% reported it to be an extreme contribution. Two objectives appeared to be the primary modes of address of this deficiency. They were general remedial academic work and counseling and guidance. Four other objectives were associated. They included remedial reading, attendance, self-concept and attitudes toward school.

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*Table(s) referenced appear in Appendix A of the Final Report of this Study.

In regard to negative peer group influence, 63.9% of the districts reported this variable as a factor and 11.3% of these districts reported it as an extreme contribution. Three program activities appeared to be major modes of address of this problem. They included: general vocational program activities, general academic enrichment and bilingual education. Three other objectives were associated with the incidence of the deficiency. These included general affective domain activities, attendance, and attitudes toward peers.

Only 48.8% of the district reported ethnic discrimination as a factor contributing to the educational problems of Native American children. Seven percent (7%) of these districts reported it as an extreme contributor. Four project activities were associated with the address of this deficiency. They include bilingual, domestic skills development, general academic enrichment, and psychological services.

Health problems were reported by 44.6% of the districts as contributing factors to the educational problems of Native American children and a mere 3.3% reported this deficiency as an extreme contributing factor. Three activities appeared to be the primary modes of address of this problem. They included: medical and dental services, general academic enrichment, and general remedial academic services.

The Interface of Funded Projects with Effectiveness

Summary Description

The staff and parent committee members indicated that 75% of the projects were at least moderately effective in the areas of overcoming academic difficulties, providing supplementary services, improving Native American pupil attitudes toward school and developing a more favorable Native American self-concept. On the average, fewer projects were considered effective by the staff and parents in the areas of improving staff attitudes toward Native American pupils and improving of non-Native American pupil attitudes toward Native American pupils.

In the majority of the districts, the staff reported involvement in remedial reading, remedial mathematics, native language and cultural heritage, counseling and guidance, attendance, self-concept, responsibility and self-direction, and in attitudes toward school. Likewise, the vast majority of these projects reported improvement in the same cognitive and affective domains.

Detailed Description

Six questions were asked of both the staff and the parent committee concerning their judgment of the effectiveness of the funded projects. A similar six questions were asked of the Project Director, except that these questions were focused upon and linked to project components of the entire project. These six questions dealt respectively with effectiveness in regard to overcoming academic difficulties, effectiveness in the provision of supplementary services, effectiveness in the improvement of attitudes toward school of Native American pupils, effectiveness in the improvement of Native American self-concept, effectiveness in the improvement of the attitudes of staff toward Native American pupils and effectiveness in the improvement of attitudes of non-Native American pupils toward Native American pupils. Variables created upon these twelve questions will be used to indicate project effectiveness, since the response of staff and parent committee are highly consistent. Student achievement scores will also be analyzed in regard to project effectiveness but will be reported under the topic of impact evaluation feasibility.

Both objectives or project activities and staff programmatic activities can be used to describe the funded projects. In the analysis of needs to projects to effectiveness, project activities were used to represent the basic descriptor of funded projects. This analysis will be reported later under the topic, Interface of Indian Needs with Project Effectiveness. In this section activities of staff will be used as the project descriptor and will be cross tabulated with each of the questions regarding effectiveness. (Tables IV-25* [a-h] through IV-30*[a-h]).

The staff rated 28.2% of the project as being very effective in overcoming academic difficulties while the parent committee respondents rated 35.2% of the projects as very effective. The staff reported 46.0% of the projects as moderately effective and the parent committee rated 46.9% of the projects as moderately effective. The project staff rated 7.0% of the projects as only somewhat effective and the parent committee respondents rated 8.0% of the projects as somewhat effective. Neither of the sets of respondents rated any project as not effective.

In regard to effectiveness at the provision of supplementary services, the staff reported that 58.2% of the projects were very effective and the parent committee members reported that 55.4% of the projects were very effective. The staff responded that 23.9% of the projects were moderately effective in providing educational services that would not be provided otherwise. The parent committee rated 31.9% of the projects as moderately effective. The staff rated 3.8% of the projects as somewhat effective and failed to rate any project as not effective in providing supplemental services. The parent committee respondents rated 4.2% of the projects as only somewhat effective and 0.5% of the projects as not effective in the provision of educational services that would not be provided otherwise.

The project staff reported that 36.2% of the projects and the parent committee reported that 35.2% of the projects obtained great improvement in the attitudes of the Native American pupils toward school. The staff reported another 46.5% of the projects obtained moderate improvement. The parent committee reported that 49.8% of the projects obtained moderate improvement. The project staff responded that 4.7% of the projects obtained little improvement and no projects failed to obtain any improvement. The parent committee responded that 6.6% of the projects obtained only a little improvement and that 0.5% of the projects obtained no improvement.

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*Table(s) referenced appear in Appendix A of the Final Report of this Study.

An extremely high rate of effectiveness was reported by both sets of respondents in regard to the development of more favorable self-concepts by Native American pupils. The staff rated 52.1% of the districts as considerably effective while the parent committee rated 54.0% of the projects as considerably effective. The staff further identified 33.8% of the projects as moderately effective as compared to the 38.0% of the projects deemed moderately effective by the parent committee respondents. Only 1.4% of the projects were identified as little effective by the staff and 2.8% of the projects were identified as little effective by the parent committee. No project was reported to be of negligible success by either respondent group.

The two groups also rated the projects in regard to their success in improvement of the attitudes of staff toward Native American pupils. The ratings ranged from negligible, to little, to moderately, to considerably. Approximately thirty-three percent (33%) of the projects rated by the staff and 29.1% of the projects rated by the parent committee were rated considerably. The staff considered 40.4% of the projects to have achieved moderate improvement while the parent committee reported that 49.3% of the projects obtained moderate improvement. Both the staff and the parent commitee reported that 9.4% of the projects obtained little improvement. The staff reported that 1.4% projects obtained negligible improvment while the parent committee reported that 1.5% of the projects obtained negligible improvement.

In regard to effectiveness in improvement of attitudes of non-Native American pupils toward Native American pupils, the staff rated 18.8% of the projects as having had considerable success and the parent committee rated 23.9% of the projects as having obtained considerable improvement. Approximately forty-two percent (42%) of the districts were rated by the staff as moderately successful. The parent committee rated 40.8% of the projects as having obtained moderate improvement. The staff placed 17.4% of the districts and the parent committee placed 18.8% of the districts in the category of little improvement. Approximately two percent (2%) of the projects were rated ineffective by the staff and 4.2% of the projects were judged ineffective by the parent committee respondents.

Teacher activities in eight of the most frequently reported project areas were subjected to analysis in regard to the six questions. These project areas were remedial reading reported by 58.2% of the districts, remedial mathematics reported by 46.0% of the districts, native language and cultural heritage reported by 62.0% of the districts, counseling and guidance reported by 56.3% of the districts, attendance reported by 47.9% of the districts, self-concept reported by 54.9% of the districts, responsibility and self-direction reported by 46.9% of the districts and attitudes toward school reported by 51.2% of the districts.

Reported staff involvement in activities in these areas generally surpassed districts' reports of objectives in these areas. The staff reported involvement in remedial reading in 64.3% of the districts, in remedial mathematics in 54.9% of the districts, in native language and cultural heritage in 64.8% of the districts, in counseling and guidance in 60.1% of the districts, in attendance in 60.1% of the districts, in self-concept in 70.9% of the districts, in responsibility and self-direction in 65.7% of the districts, and in attitudes toward school in 70.9% of the districts. Some of these activities, however, may not be included in formal project design.

In regard to the remedial reading program the staff rated 35.7% and the parent committee 37.9% of the projects as very effective in overcoming academic difficulties. Additionally, 54.0% of the districts and 51.8% of the districts were rated respectively by staff and parent committee as being moderately effective in overcoming academic difficulties. Both staff and parent committees identified 7.2% of the districts as only somewhat effective. None of the projects were rated not effective. The staff rated 69.3% of the districts and the parent committee rated 60.5% of the districts as being very effective in providing supplemental services. Approximately twenty-five percent (25%) of the projects and 30.6% of the projects were rated respectively by staff and parent committee as being moderately effective. Only 2.9% by the staff and 4.3% by the parent committee were rated as only somewhat effective, and 0.1% of the districts were rated ineffective by the parent committee in providing supplemental services.

In regard to improvement of attitudes toward school, rating of staff and parent committee members cross tabulated with remedial reading activities showed 45.2% and 42.3% of the projects respectively rated in the great improvment category, 50.3% and 48.9% moderate improvement, 2.1% and 3.6% little improvement, and only 0.1% projects showing no improvement by a parent committee member. In effectiveness of projects in the development of more favorable self-concepts, the staff and parent committee respondents produced the following profile: 60.5% and 64.2% considerably; 35.0% and 37.9% moderately and 1.4% and 2.1% little. There were no negligible ratings.

In regard to effectiveness in improvement of attitudes of staff toward Native American pupils, the remedial reading profile as rated by staff and parent committee showed: 37.2% and 32.8% of the projects in the considerably category, 46.7% and 49.6% in the moderately category; and 8.0% in the little with 0.1% in negligible by the district staff.

Effectiveness in improving attitudes of non-Native Americans toward Native Americans was profiled by staff and parent committee as: 19.7% and 25.5% considerably; 50.3% and 42.3% moderately; 16.7% and 18.2% little and 1.4% and 4.3% negligible.

Profiles of the remaining seven project areas (i.e., mathematics, cultural heritage, counseling and guidance, attendance, self-concept, self direction, and school attitudes) appear in Exhibit IV-1 with the reading profile. Averages between staff and parent committee ratings are reported in Exhibit IV-1.

EXHIBIT IV-1
EFFECTIVENESS OF PROJECTS AS RATED BY PARENTS AND STAFF
(PERCENTAGES ROUNDED TO 1/10 OF A PERCENT)

	OVERCOMING ACADEMIC DIFFICULTIES								PROVISION OF SUPPLEMENTARY SERVICES							
Effectiveness	Reading	Mathematics	Cultural Heritage	Counseling & Guidance	Attendance	Self Concept	Self Direction	School Attitudes	Reading	Math	Cultural Heritage	Counseling & Guidance	Attendance	Self Concept	Self Direction	School Attitudes
	PERCENT OF PROJECTS								PERCENT OF PROJECTS							
Most ↑																
	36.8	36.8	33.7	35.5	36.4	36.0	36.3	36.3	64.9	66.3	63.3	63.6	65.9	65.2	67.1	66.2
	52.7	53.4	52.1	53.0	53.9	52.2	52.4	52.2	27.7	27.8	28.9	27.7	27.7	28.1	26.4	26.9
	7.2	7.5	6.1	5.8	5.4	6.2	6.4	6.5	3.6	4.2	4.3	3.8	3.9	3.6	3.8	3.9
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0
↓ Least																
	ATTITUDES TOWARD SCHOOL								SELF CONCEPT							
Most ↑																
	43.7	41.8	39.4	42.9	44.8	41.3	42.1	41.7	62.3	58.5	59.7	64.0	64.4	63.2	63.8	62.8
	49.9	51.6	53.6	50.3	49.1	51.9	51.8	51.9	36.4	37.6	38.3	34.3	33.9	34.4	33.8	30.7
	2.8	4.2	4.7	2.3	3.1	3.3	2.8	2.6	1.7	1.7	0.7	0.7	1.5	1.3	1.4	0.6
	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
↓ Least																
	STAFF ATTITUDES								NON-NATIVE AMERICAN ATTITUDES							
Most ↑																
	35.0	34.5	35.4	35.5	35.5	36.0	35.0	34.7	22.6	22.2	25.6	23.0	24.5	25.4	24.2	24.4
	48.1	52.1	52.1	50.7	59.5	50.0	50.7	50.2	46.3	47.8	48.1	48.4	47.6	46.9	49.6	46.6
	8.0	5.9	7.5	7.7	8.1	7.9	7.1	7.2	17.4	17.4	17.7	19.1	19.8	19.1	18.9	18.5
	0.1	0.8	0.1	0.7	0.3	0.3	0.7	0.6	2.8	3.8	1.7	1.9	3.1	2.3	2.4	2.3
↓ Least																

NOTE: The percentages reported in Exhibit IV–1 were generated by computer. Rounding may have resulted in columns not equaling 100%.

In terms of the across objectives profiles, there was apparent agreement that 90% of all eight areas of affective improvement aided in overcoming academic difficulties. Appropriately, reading and mathematics had a slight edge but not enough to provide distinctive discriminate validity. Likewise, 93% of the projects provided supplementary services with services directed toward the development of responsibility and self-direction being the highest rated in terms of effectiveness. Approximately 92% of the projects were perceived as contributing to the improvement of attitudes toward school with attendance and reading being rated the most effective. Approximately 95% of the projects were rated influential in improving the self-concept of Native American pupils. Attendance and counseling and guidance projects were perceived as the most effective. Only 85% of the projects were perceived as influential in changing attitudes of teachers toward Native American pupils with the balance of the projects being perceived as the most effective. About 70% of the projects were perceived as effective in improving the attitudes of non-Native Americans toward Native Americans. The cultural heritage and the self-concept projects were perceived as the most effective.

4.2.2 To Provide Information to Support the Office of Education in Planning and in Grant Administration

A second objective of the study was to provide information concerning the delivery system requirements which may prove helpful to the Office of Indian Education in grant administration. Two major funding conditions are currently levied on the eligible school districts. These funding conditions are the requirements of a needs assessment and the required necessity of establishing a parent committee. A third provision for local evaluation is also levied but will not play a major role in this evaluative effort except that some of the data available to this effort would not have been available without this third funding condition.

Two variables have generally been used to describe the two former funding conditions. They are types of people who contributed information to the needs assessment and the degree of the parent committee involvement in project design and monitoring activities. Various relationships of these variables to program varaibles will be reported here in order to define how these funding conditions are affecting the funded projects. Again, the same format of matrix interface will be used to report the findings.

The Interface of Funding Conditions with Target Setting

Summary Description

Twenty-seven percent (27%) of the projects for whom data were reported were conducted in an urban setting. Approximately fifty percent (50%) of the funded projects were in districts with a high density of Native American population in a rural setting.

The vast majority of the urban districts and rural high and low density districts gathered needs assessment data from Native American pupils, parent committees, community members, project staff and district staff. With the exception of the rural high density districts (55.2%), the majority of the urban districts and rural low density districts received very little input for the needs assessment from Tribal Committee members

On the average, the majority of the urban districts and rural, high and low density districts gathered their needs assessment data by means of unsolicited suggestions, unstructured interviews, structured interviews and questionnaires.

On the average, the majority of the urban districts and rural, high and low density districts had the parent committee involved in the following activities: staff recommendations, curriculum decisions, pupil selection, public relations, proposal development, budget review, needs assessment, proposal review, establishment of project objectives, project monitoring, project evaluations, and final report development and review. The parent committees in these same districts were involved to a very little degree in assisting with instructional activities. The parent committees, in the majority of cases, are performing these activities in the various types of districts, and the activities are proportionally distributed across the different levels of pupil enrollment.

Detailed Description

A composite variable was defined to designate differences in target setting. This composite variable was made up of district size as defined by five levels of school enrollment, and urban rural variable based upon membership in census SMSA's and a density of Native Americans defined upon two levels of density determined by a 10% cutting point in regard to population ratios. Three variables were cross tabulated with this setting variable. They were: (1) contributors of information on the needs assessment; (2) type of information used in the needs assessment; and (3) activities of the parent committee (shown in Tables IV-31,* IV-32* and IV-33* respectively).

The first analysis of the interface of funding conditions to target setting involves the analysis of contributors of information to needs assessment across the target setting variables. Twenty-seven percent (27%) of the projects were in an urban setting. Because of the absence of many, if any, urban settings with a high density of Native American population, no split was made in regard to density of Native Americans. Of the projects which were conducted in urban settings, 5.2% were in districts with enrollments between 301 and 5000, 19.0% were in districts with enrollments between 5001 and 20,000, 29.3% were in districts with enrollments between 20,001 and 50,000 and 24.1% were in districts with enrollments above 50,000. Approximately 49.2% of the funded districts were in districts with a high density of Native American population (above 10%) in a rural setting. Of these districts, 4.8% had enrollments between 1 and 300 students, 79.0% had enrollments between 301 and 5,000, and 8.6% had enrollments between 5,001 and 20,000. Approximately 23.8% of the funded projects were in districts in a rural low density setting. Of these districts, 2% had enrollments between 1 and 300, 56.0% had enrollments between 301 and 5,000, 34.0% had enrollments between 5,001 and 20,000 and 2% had enrollments between 20,001 and 50,000.

Eighty-five percent (85%) of the urban districts, 82.9% of the rural, high density districts and 76.0% of the rural low density districts used input from Native American pupils in their needs assessment. This use of Native American pupils appeared to be proportionally distributed across district size of enrollment.

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*Table(s) referenced appear in Appendix A of the Final Report of this Study.

Ninety-seven percent (97%) of the rural high density districts and 92% of the rural low density districts used parent committee input in their needs assessment. Again, these frequencies were approximately distributed proportionally across district enrollment levels.

Eighty-six percent (86%) of the rural high density districts and only 62.0% of the rural low density districts used community members in their needs assessment. In the urban setting there was a tendency for the larger districts (above 50,000) to use community members less than the other districts. Otherwise, use of community input was proportionally distributed across enrollment levels.

Only 17.2% of the urban districts, 55.2% of the rural high density and 42.0% of the rural low density districts used input in their needs assessment from Tribal Committee members. The low percentage of districts in the urban setting using Tribal Committee members may be reflective of the large number of tribes served in most urban settings. In the urban setting, there was a tendency for the smaller districts to utilize Tribal Committee members at four times the ratio within the group. Otherwise, the use of Tribal Committee members was proportionally distributed across levels of enrollment.

Eighty-one percent (81%) of the urban districts, 87.6% of the rural high density districts, and 80.0% of the rural low density districts used project staff as input in their needs assessment. In both the urban and the rural high density districts, there was a tendency of the smaller districts not to use staff input.

Seventy-nine percent (79%) of the urban districts and rural high density districts and 72.0% of the rural low density districts used district staff other than project staff as input in their needs assessment. The use tended to be proportionally distributed across enrollment levels.

The next descriptor of needs assessment crosstabulated with the target setting variable was the type of information gathered in the needs assessment. Sixty-seven percent (67%) of the urban districts, 71.4% of the rural high density districts, and 70.0% of the rural low density districts used unsolicited suggestions as needs assessment information. This use of unsolicited information may erode control of information source and may provide a podium for polemic groups. This practice, however, appeared to be proportionally distributed across enrollment levels.

Sixty-three percent (63%) of the urban districts, 65.7% of the rural high density districts and 62.0% of the rural low density districts used unstructured interviews for needs assessment information. This was acceptable as a better practice since this allowed control of the information source. This practice also appeared to be approximately proportionally distributed across enrollment levels.

Only 41.4% of the urban districts, 51.4% of the rural high density districts and 54.0% of the rural low density districts used structured interviews to gather needs assessment information. There appeared to be a tendency for large districts (enrollment greater than 50,000) to use this method more frequently. This may be related to the degree of research sophistication in research methods existing in the larger districts.

Seventy-six percent (76%) of the urban districts, 64.8% of the rural high density districts, and 44.0% of the rural low density districts utilized questionnaires. This practice appeared to be approximately proportionally distributed across enrollment levels.

Parent committee activities were also crosstabulated across the target setting variable. Thirteen parent committee activities were included in the analysis. They were (1) staffing recommendations; (2) curriculum decisions; (3) selection of pupils; (4) public relations; (5) proposal development; (6) budget review; (7) assisting in instructional activities; (8) conduct of needs assessment; (9) proposal review; (10) establishment of objectives; (11) project monitoring; (12) project evaluations; and (13) final report development and review.

Eighty-one percent (81%) of the urban districts, 64.7% of the rural high density districts and 78.0% of the rural low density districts involved the parent committee in a significant way in staff recommendations. This involvement seemed to be proportionally distributed across enrollment levels.

Only 48.3% of the urban districts, 63.8% of the rural high density districts, and 50% of the rural low density district involved the parent committee in curriculum decisions. This variable appeared related to the size of the constituency of the Native American community. Involvement seemed to be related to size of district with the very large districts reporting less.

Fifty-nine percent (59%) of the urban districts, 45.7% of the rural high density districts, and 68% of the rural low density districts reported involvement in the selection of pupils for project participation. This variable appeared approximately proportionally distributed across levels of enrollment.

Forty-five percent (45%) of the urban districts, 60% of the rural high density and 48.0% of the rural low density districts involved the parent committee in public relations. Again, this variable appeared to be constituency related. This variable appeared to be associated with the smaller districts.

Seventy-nine percent (79%) of the urban districts, 79.1% of the rural high density districts and 72.0% of the rural low density districts used the parent committee in proposal development. This use of the parent committee was proportionally distributed across the levels of enrollment.

Eighty-one percent (81%) of the urban districts, 82.9% of the rural high density districts, and 78.0% of the rural low density districts used the parent committee in budget review. This utilization also appeared to be proportionally distributed across enrollment levels.

Only 20.7% of the urban districts, 17.2% of the rural high density districts, and 40.0% of the rural low density districts used the parent committee in the assisting with instructional activities. The increased used by rural low density districts may have represented a shortage of Native American staff and an attempt to get Native American input in instruction. The use of the parent committee in instruction appeared to be primarily associated with the larger districts within a stratum.

Eighty-three percent (83%) of the urban districts, 74.3% of the rural high density districts, and 58% of the rural low density districts used the parent committe in the conduct of the needs assessment. This variability may have been due to the strength of the Indian community. This variable appeared to be approximately proportionally distributed across enrollment levels.

Ninety-three percent (93%) of the urban districts, 84.8% of the rural high density, and 82% of the rural low density districts involved the parent committee in proposal review. This utilization appeared related to the urban/rural variables and appeared approximately proportionally distributed across enrollment levels.

Ninety percent (90%) of the urban districts, 86.2% of the rural high density districts, and 76% of the rural low density districts involved the parent committee in establishing project objectives. This variable appeared to be related to the urban/rural variable and to the density variable with other urban and the high density elements projecting higher involvement. This variable was related to the districts with the larger enrollment statistics.

Sixty-seven percent (67%) of the urban districts, 59.1% of the rural high density districts, and 54% of the rural low density districts involved the parent committee in project monitoring. This involvement was related to the urban/rural variable and to the density variable, but was approximately proportionally distributed over the enrollment level variable.

Sixty-four percent (64%) of the urban districts, 62.8% of the rural high density districts, and 58% of the rural low density districts reported that the parent committee was involved in project evaluations. This variable appeared associated with the smaller districts within a stratum.

Sixty-six percent (66%) of the urban districts, 60.9% of the rural high density districts, and 60% of the rural low density districts involved parent committee members in the development and review of final reports. This variable appeared approximately proportionally distributed across enrollment levels.

The Interface of Funding Conditions with Indian Needs

Summary Description

The major areas of needs identified by the majority of the contributors to this study are: physical, remedial mathematics, remedial reading, remedial general academic areas, Indian heritage, self-concept, motivational, arts and crafts, bilingual and community inovlvement. The order and priority of these needs are outlined in the Detailed Description.

Detailed Description

Tables IV-34* and IV-35* show the interface of funding conditions with Indian needs. Table IV-34* shows the crosstabulation of Indian needs as shown by the needs assessments with the contributors to the needs assessment.

Of the needs reported: 5.0% were physical needs, 3.3% were remedial mathematics needs, 11.7% were remedial reading needs, 11.3% were general remedial academic needs, 16.0% were Indian heritage needs, 0.5% were American society related needs, 3.3% were self-concept needs, 0.9% were physical education or recreational needs, 0.5% were learning materials needs, 2.8% were special education needs, 3.3% were bilingual needs, 6.1% were motivational needs, 3.8% were arts and crafts needs, 0.9% were curriculum enrichment needs, 3.3% were community involvement needs, 0.5% were self-awareness needs, 2.8% were staff training needs, 1.9% were career education needs, 2.8% were vocational needs, 0.5% were other unlisted needs and 1.9% were supportive services needs.

In terms of physical needs, only Tribal Committee members were low in identifying physical needs. Everyone else was in near agreement. Similarly the same profile was developed for remedial mathematics. Likewise, the Tribal Committee appeared low or disproportionate in the identification of remedial reading needs, general remedial academic needs, and Indian heritage needs. The American society needs was proportional across all groups. The self-concept need was also low for the Tribal Committee, but otherwise proportionate. Recreation, learning materials, special education, bilingual, motivational, arts and crafts, staff awareness, staff skill development, and vocational skills were proportionally distributed across needs information sources. The community involvement need, the staff awareness variable, the staff skill training and supportive services were reported low by the Tribal Committees.

The parent committee involvement variable was also crosstabulated with needs (Table IV-35).* All needs seemed to be associated approximately proportionally to needs identification. In most areas, parent committee utilization was at least connected to some degree with needs identification although the direct influence of a particular activity was not clear since so many activities were indirectly related to needs identification.

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*Table(s) referenced appear in Appendix A of the Final Report of this Study.

The Interface of Funding Conditions with Funded Projects

The interface of funding conditions with funded projects is shown with the cross tabulation of sources of needs with objectives. Since the activities of the parent committee failed to be related to needs, no attempt was made to relate project activities to objectives due to the association of objectives to needs. Table IV-36*shows the cross tabulation of objectives to needs analysis sources. All of the objectives with the exception of objectives 3, 8, 9, 23, and 24 were proportionally distributed across needs assessment sources. Objectives 3 and 9 appeared less frequently in districts using Native American pupils as a source of information. Likewise, objectives 8, 9, 23 and 24 appeared less frequently in districts using Tribal Committee members as a source of information.

The Interface of Funding Conditions with Measures of Project Outcomes

Summary Description

Projects where parent committees were not involved were considered less effective in the areas of overcoming academic difficulties, improvement of pupil's attitude toward school and the development of a favorable self-concept in Native American pupils.

The staff and parent committee ratings of project effectiveness in the three areas of academic, attitude and self-concept were proportional across the variables of pupil selection by parent committee, proposal development, needs assessment, establishment of project objectives, public relations, proposal review, project evaluations and final report development and review.

Detailed Description

Table IV-37*shows the cross tabulation of needs assessment sources with three of the effectiveness questions: effectiveness in overcoming academic difficulties; effectiveness in the improvement of pupils' attitudes toward school; and effectiveness in the development of more favorable self-concepts in Native American pupils. The ratings were proportionally distributed across sources indicating that different sources of needs were not differentially associated with perceptions of effectiveness by staff and parent committee respondents in the three areas of concern.

Tables IV-38 (a-c)*through IV-50 (a-c)*show the cross tabulation of parent committee activities with the same three questions of effectiveness. In regard to parent committee involvement in making staffing recommendations, there appeared to be a small interaction between staff and parent committee ratings of districts in their effectiveness at overcoming academic difficulties. Projects where the parent committee was not involved were seen by the parent committee as less effective. Projects where there was high parent committee involvement were seen by staff as less effective than where there was moderate or no parent committee involvement in staffing recommendations. In regard to

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*Table(s) referenced appear in Appendix A of the Final Report of this Study.

effectiveness in improving attitudes of Native American pupils toward school, the staff tended to rate projects with no parent committee involvement in making staffing recommendations less effective than those in which the parent committee was involved. The parent committee, however, tended to be more critical than the staff, but were proportionally distributed across the involvement variable.

In regard to project effectiveness in the development of more favorable self-concepts, effectiveness ratings of staff were proportionally distributed across involvement, but parent committee members tended to see districts with no or little involvement as having less effective projects.

Both staff and parent committee ratings of effectiveness were proportionally distributed across parent committee involvement in curriculum decisions for both academic remediation and self-concept development. However, in regard to the improvement of attitudes toward school, the staff tended to rate projects in which there was low parent committee involvement as less effective. This was not the case with parent committee ratings which were proportionally distributed across involvement.

Both staff and parent committee ratings of project effectiveness in all three areas, academic, attitude and self-concept were proportionally distributed across the involvement variable in regard to parent committee participation in the selection of pupils for the projects. The same proportional distribution existed for the cross tabulation of effectiveness in regard to academic remediation and self-concept development with parent committee involvement in public relations. This, however, was not the case for effectiveness in attitude development. Both staff and parent committee ratings of projects showed effectiveness directly related to involvement.

Both the staff and the parent committee relate perceptions of effectiveness with parent committee involvement in proposal development for all three areas; academic, attitude and self-concept development. The staff ratings of effectiveness in the three areas is also associated with parent committee involvement in budget review. However the parent committee ratings displayed an inverse relationship between effectiveness in all three areas and involvement in budget review. This inverse relationship was seen by both staff and parent committee respondents for all three effectiveness questions in regard to parent committee involvement in instruction.

In regard to project effectiveness in academic improvement, in development of favorable attitudes toward school and in the development of favorable self-concepts, the staff ratings were proportionally distributed across the levels of involvement in needs assessment. However, parent committee ratings of the effectiveness of these projects were inversely associated with parent committee involvement. A proportional distribution between involvement in proposal review and in ratings of effectiveness on all three questions was also obtained.

Parent committee involvement in the establishment of project objectives was found to be directly associated with effectiveness ratings of both staff and parent committee for projects in regard to overcoming academic difficulties, improving attitudes toward school and developing favorable self-concepts. Similarly, parent committee involvement in project monitoring was found to be inversely associated with effectiveness ratings by both sets of respondents for the three project outcomes in question.

Ratings of project effectiveness in overcoming academic difficulties, in improving attitudes toward school, and in developing more favorable self-concepts of Native American children were proportionally distributed across parent committee involvement in project evaluations. The same result was found for parent committee inolvement in final report development and review.

Table IV-51* displays the cross tabulation of parent committee reports of their involvement in project activities with the staff and their ratings of project effectiveness in overcoming academic difficulties, in improving attitudes toward school and in developing more favorable self-concepts.

The report of the parent committee in regard to participation in project activities for the most part was proportionally distributed across ratings of effectiveness in the three areas; academic improvement, attitude improvement and self-concept development. The staff and parent committee interactions still occurred in the academic improvement area for parent committee involvement in other activities, but disappears in regard to staffing recommendations. Effectiveness appeared associated with the binary variable of involvement in regard to pupil relations and attitude development, and in regard to selection of pupils, academic improvement and self-concept development. Effectiveness also appears associated with involvement in instruction and in self-concept development.

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*Table(s) referenced appear in Appendix A of the Final Report of this Study.

Interface of Target Setting with Project Outcomes

Summary Description

In urban districts with under 20,000 enrollment and rural high and low density districts, projects were rated by staff and parent committees as moderately to very effective in overcoming academic difficulties and providing supplemental services.

Project effectiveness in the areas of overcoming academic difficulties, providing supplemental services, improving school attitudes and developing favorable self-concepts were not related to the various levels of per pupil expenditure.

Detailed Description

The interface between target setting and project outcomes was investigated through two sets of analyses. The first set of analyses involved the crosstabulation of district setting variables with two questions of effectiveness, namely: effectiveness in overcoming academic difficulties and effectiveness in the provision of supplementary services. The second set of analyses involved the crosstabulation of per pupil expenditure with four questions of effectiveness, namely: effectiveness in overcoming academic difficulties; effectiveness in the provision of supplementary services; effectiveness in the improvement of attitudes toward school; and effectiveness in the development of favorable self-concepts.

Table IV-52* shows the crosstabulation of the setting variable with the ratings of effectiveness by staff and parent committee respondents of projects in regard to their success at overcoming academic difficulties and in providing supplemental services. To review the district setting variable, 27.2% of the projects were urban and, of those projects, 5.2% were in districts with enrollment between 301 and 5,000, 19.0% in districts with enrollment between 5,001 and 20,000; 29.3% in districts between 20,001 and 50,000 and 24.1% in districts with enrollment above 50,000. Forty-nine percent (49%) of the project were in districts which were rural and had greater than 10% Indian populations. Of these districts, 4.8% had enrollments between 1 and 300; 79.0% had enrollments between 301 and 5,000 and 8.6% had enrollments between 5,001 and 20,000. Twenty-three percent (23%) of the projects were in districts which were rural and which had less than 10% Indian population. Of these districts, 2.0% had enrollments between 1 and 300, 56% had enrollments between 301 and 5,000, 34% had enrollments between 5,001 and 20,000 and 2.0% had enrollments between 20,001 and 50,000.

In regard to projects being effective in overcoming academic difficulties, all of the urban projects which were rated only somewhat effective or not effective were in districts with enrollments between 20,001 and 50,000. In the rural high density districts, projects receiving somewhat effective or not effective ratings were proportionally distributed across enrollment levels of 301 to 5,000 and 5,001 to 20,000. This distribution also occurred in the rural low density districts. Hence, it appears that lack of success occurred in districts with slightly larger enrollments in the urban setting than in the rural setting. But in both cases ineffective ratings were limited to given district enrollment levels. In the urban districts, 75.9% of the projects were rated by staff to be very effective or moderately effective in overcoming academic difficulties. In the rural high density districts, 82.9% of the projects were placed by staff in these categories, but only 54.0% of the projects in rural low density districts were rated either moderately or very effective. The parent committee rated 86.2% of the urban districts, 84.7% of the rural high density districts and 68.0% of the rural low density districts in the moderate and very effective categories. Hence, it appeared that both the urban and rural high density districts were able to mount projects which were perceived as slightly more effective than those mounted by the rural low density districts.

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*Table(s) referenced appear in Appendix A of the Final Report of this Study.

In regard to projects being effective in offering services which would not have otherwise been available, all of the urban projects rated only somewhat effective or not effective occurred in districts having enrollments between 20,001 to 50,000. Likewise, the projects rated somewhat effective for rural districts were limited to those having enrollments between 301 and 20,000. The staff rated 86.2% of the urban districts, 97.6% of the rural high density and 66.0% of the rural low density districts as having projects which could be classified as either moderately or very effective. The parent committee rated 87.0% of the urban districts, 89.5% of the rural high density districts, and 82.0% of the rural low density districts as having projects which could be classified as either moderately or very effective in the provision of supplemental services. Again, there appears to be an association of effectiveness with density of the Indian community and with the expertise of urban school districts.

Responses to four effectiveness questions were crosstabulated with a per pupil expenditure variable which contained five classifications of per pupil expenditures $1 to $500, $500 to $1,000, $1,000 to $1,500, $1,500 to $2,000, and above $2,000. The four effectiveness questions included staff and parent committee ratings of projects in regard to their success in overcoming academic difficulties, in providing services which would not have been provided otherwise, in improving the attitudes of Native American pupils toward school, and in developing more favorable self-concepts of Native American pupils. Of the funded projects, 0.9% of the districts had per pupil expenditures between $1 and $500; 5.2% between $500 and $1,000; 21.6% between $1,000 to $1,500; 33.3% between $1,500 and $2,000; and 23.9% over $2,000. Ratings of project effectiveness in overcoming academic difficulties appeared to be proportionally distributed across levels of per pupil expenditure. Similarly, ratings of project effectiveness in the provision of supplemental services were also proportionally distributed across levels of per pupil expenditure. Ratings of project effectiveness in the improvement of school attitudes and in the development of favorable self-concepts were also proportionally distributed across levels of per pupil expenditure. Hence, it did not appear that ratings of project effectiveness associated effectiveness with levels of per pupil expenditure. (Table IV-53)*

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*Table(s) referenced appear in Appendix A of the Final Report of this Study.

The Interface of Funding Level with Target Setting

Summary Description

In urban areas, 8.6% of the districts received grants below $10,000; 24.1% received grants between $10,000 and $50,000; and, 67.2% of the districts received grants over $50,000.

In rural high density areas, 7.6% of the districts received grants below $10,000 and 36.2% received grants between $10,000 and $50,000.

In rural low density areas, 50% of the districts received grants below $10,000; 40% received grants between $10,000 and $50,000; and 10% of the districts received grants above $50,000.

The majority of the urban districts (67.2%) which received grants over $50,000 were districts with pupil enrollments over 20,000. The 10% of the districts receiving over $50,000 in the rural low density areas were distributed in districts whose enrollment exceeded $5,000.

Detailed Description

The interface of funding level with target setting is displayed in Table IV-54* which shows the target setting variable crosstabulated with grant size. Nine percent (9%) of the urban districts received grants below $10,000. These grants were distributed approximately proportionally across categories of district enrollment. Twenty-four percent (24%) of the urban districts received grants between $10,000 and $50,000. These grants were proportionally distributed across categories of district enrollment. Sixty-seven percent (67%) of the urban districts received grants over $50,000 and there was a tendency for them to be primarily distributed in districts with enrollment above 20,001. Eight percent (8%) of the rural high density districts received grants of less than $10,000. As would be expected these grants were primarily distributed in the smaller districts whose enrollments were between 1 and 300 and between 301 and 5,000. Thirty-six percent (36%) of the rural high density districts received grants between $10,000 and $50,000. These grants were primarily given to districts with enrollments between 301 and 5,000. Fifty percent (50%) of the rural low density districts received grants below $10,000. These grants were distributed largely in districts having enrollments between 301 and 5,000. Forty percent (40%) of the rural low density districts received grants between $10,000 and $50,000. These grants were distributed in districts whose enrollments fell between 301 and 20,000 with the majority being in districts between 301 and 5,000. Ten percent (10%) of the rural low density districts received grants above $50,000. These grants were distributed in districts whose enrollment exceeded 5,000 pupils.

*Table(s) referenced appear in Appendix A of the Final Report of this Study.

Interface of Indian Needs with Project Outcomes

Summary Description

Sixty percent (60%) of districts with grant sizes below $10,000, 58% of districts with grant sizes between $10,000 and $50,000, and 69% of districts with grant sizes over $50,000 were appropriately targeted in that where the district reported reading needs, they also reported matching project objectives.

In districts receiving grants ranging from below $10,000 to $50,000 and above, and were identified as having a reading need and reading objectives, the majority of the districts were reported to be moderately to very effective in overcoming academic difficulties, in providing supplemental services, in improving attitudes toward school, developing favorable self-concepts, improving staff attitudes toward Native American pupils, and improving attitudes of non-Native American pupils toward Native American pupils. The larger the grant size, the greater percentage of districts with reading needs and reading objectives which showed moderate to very effective improvement in the areas mentioned above.

Thirty-three percent (33%) of districts with grant sizes below $10,000, 64% of districts with grant sizes between $10,000 and $50,000, and 71% of districts with grant sizes over $50,000 were appropriately targeted in that where the district reported guidance and counseling needs, they also reported matching project objectives.

In districts receiving grants ranging from below $10,000 to above $50,000, and were identified as having guidance and counseling needs and objectives, the majority of the districts were reported to be moderately to very effective in overcoming academic difficulties, providing supplemental services, improving attitudes toward school, developing favorable self-concepts, and improving staff and non-Native American pupil attitudes toward Native American pupils. The larger the grant size, the greater percentage of districts with guidance and counseling needs and objectives which showed moderate to very effective improvement in the areas mentioned above.

Regardless of grant size, the parent committee rated the majority of projects with mathematical, bilingual and special education needs and objectives as effective in overcoming academic difficulties.

For the most part, districts which had needs and objectives reported in industrial education, agricultural education, service occupation education, business education and domestic education were considered to be effective in providing supplemental services.

Detailed Description

Tables IV-55* through IV-60* report analyses of project outcomes across Indian needs. The variable to be used to display Indian needs also includes the interface of these needs to project objectives. Indian needs were paired with project objectives in order to create a four-level targeting variable. These levels included: (1) there is a need and there is a matching project objective: (2) there is a need but there is not a project objective; (3) there is no reported need, but there exists a project objective; and (4) there is no reported need and no project objective. Table IV-55 shows the crosstabulation of this variable to all six effectiveness questions as rated by parent committee respondents for the areas of remedial reading and counseling and guidance. In each of these analyses, grant size was used as a control variable.

Fifty-three percent (53%) of the districts receiving grants of less than $10,000 had a reading need and a matching project objective. Forty percent (40%) of the districts reported the need, but failed to have a project objective. Three percent (3%) of the districts had a project objective, but failed to report a need and 5.3% of the districts had no need and no objective. Hence, nearly 60% of the districts receiving grants of under $10,000 were appropriately targeted. In districts receiving grants between $10,000 and $50,000, 48.6% had a reported need and a reading objective, 38.9% had a need but no project objective, 4.2% had no need but had a project objective and 8.3% had neither need nor objective in reading. Hence, nearly 58% of the districts were appropriately targeted. Of the districts receiving grants of greater than $50,000, 61.2% reported having both a reading need and objective, 29.1% had a need but no objective, 1.9% had no need but an objective and 7.8% had neither need nor objective. Hence, 69% of these districts were appropriately targeted in reading.

Ninety-two percent (92%) of the districts received grants below $10,000, and 46% reported the existence of a reading need. Seventy-four percent (74%) of these districts were rated either moderately or very effective in overcoming academic difficulties. Seventy-six percent (76%) of these districts were rated moderately or very effective in providing services which would not normally be provided otherwise. Sixty-three percent (63%) of these districts were rated as achieving moderate or great improvement in changing attitudes toward school. Seventy-four percent (74%) were rated moderately or considerably effective in helping pupils develop more favorable self-concepts. Sixty percent (60%) were rated moderately or considerably effective in improving staff attitudes toward Native American pupils. Fifty-four percent (54%) were rated moderately or considerably effective in improving the attitudes of non-Native American pupils toward Native American pupils.

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*Table(s) referenced appear in Appendix A of the Final Report of this Study.

Fifty-five percent (55%) of the districts receiving grants below $10,000 reported reading objectives. Eighty-six percent (86%) of these districts were rated moderately or very effective in remedial academic improvement. Ninety-one percent (91%) of these districts were rated moderately or very effective in the provision of supplemental services. Eighty-six percent (86%) were rated moderately or considerably effective in improving attitudes toward school and were rated moderately or considerably effective in developing more favorable self-concepts. Seventy-six percent (76%) were rated moderately or considerably effective in changing staff attitudes and 71.4% were rated moderately or considerably effective in changing attitudes of non-Native American pupils.

Eighty-eight percent (88%) of the districts receiving grants between $10,000 and $50,000 reported the existence of a reading need. Eighty-three percent (83%) of these districts were rated either moderately or very effective in overcoming academic difficulties. Eighty-six percent (86%) were rated either moderately or very effective in providing supplemental services. Eighty-seven percent (87%) of these districts were rated moderately or considerably effective in improving attitudes toward school. Ninety-four percent (94%) of these districts were rated moderately or considerably effective in the development of favorable self-concepts. Eighty-three percent (83%) were rated moderately or considerably effective in improving staff attitudes, and 67.8% were rated moderately or considerably effective in improving attitudes of non-Native American pupils toward Native American pupils.

Fifty-three percent (53%) of the district receiving grants between $10,000 and $50,000 reported having a reading objective. Of these districts, 94.6% were rated moderately or very effective in overcoming academic difficulties of Native American children. Ninety-two percent (92%) were rated moderately or very effective in the provision of supplemental services. Ninety-seven percent (97%) were rated moderately or considerably effective in improving attitudes toward school. Ninety-eight percent (98%) were rated moderately or considerably effective in the development of favorable self-concepts. Eighty-four percent (84%) were rated moderately or considerably effective in improving staff attitudes toward Native American pupils and 65.9% of the districts were rated moderately or considerably effective in improving non-Native American pupil attitudes toward Native American pupils.

Ninety percent (90%) of the districts receiving grants of greater than $50,000 reported the existence of a reading need. Eighty-nine percent (89%) of these districts were rated effective (either moderately or very) in overcoming academic difficulties. Eighty-three percent (83%) were rated effective in the provision of supplemental services and 92.5% were effective in improving attitudes toward school. Eighty-seven percent (87%) of these districts were rated moderately or considerably effective in helping pupils develop more favorable self-concepts. Eighty-six percent (86%) were rated either moderately or considerably effective in the improving of staff attitudes toward Native American pupils and 67.6% were rated either moderately or considerably effective in improving the attitudes of non-Native American pupils toward Native American pupils.

Sixty-three percent (63%) of the districts receiving grants of greater than $50,000 reported having a reading objective. Of these districts, 89.2% were rated moderately or very effective in overcoming academic difficulties; 89.3% were effective in the provision of supplemental services; 93.9% were effective in improving attitudes toward school; 96.9% were effective in developing more favorable self-concepts; 97% were effective in improving staff attitudes, and 73.8% were effective in improving the attitudes of non-Native American pupils toward Native American pupils.

It is apparent that the smaller projects in reading were rated less effective in project outcomes related to the affective domain. This may have been due to the absence of support mecnanisms for the project effort.

Counseling and guidance matches between needs and objectives were crosstabluated with effectiveness in the same manner as were reading programs. In the analysis of targeting, 15.8% of the districts receiving grants of less than $10,000 reported having both need and project objective in guidance and counseling. Sixty-three percent (63%) reported a need but no objectives; 2.6% reported no need but an objective and 18.4% reported no need and no objective. Hence, only 33% of these districts could be considered appropriately targeted. Of the districts receiving grants between $10,000 and $50,000, 54.2% of the districts reported a match between need and objective, 29.2% reported a need but no objective, 6.9% reported no need but the existence of an objective and 9.7% reported neither need nor objective. Hence, nearly 64% of these districts were appropriately targeted. Of the districts receiving grants greater than $50,000, 64.1% of the districts reported both a need and an objective, 26.2% reported a need but no objective, 2.9% reported no need but the existence of an objective and 6.8% reported neither need nor objective. Hence, nearly 71% of the districts were appropriately targeted.

Seventy-nine percent (79%) of the districts receiving grants below $10,000 reported the existence of a guidance and counseling need. Of these districts, 76.4% were rated moderately or very effective in overcoming academic difficulties; 90% were rated moderately or very effective in providing supplemental services; 76.3% of them were rated moderately or considerably effective in improving attitudes toward school; 83.2% were rated moderately or considerably effective at developing more favorable self-concepts; 69.8% were rated at least moderately effective at improving staff attitudes toward Native American pupils; and 59.8% were rated moderately or considerably effective at influencing the attitudes of non-Native American pupils.

Twenty-one percent (21%) of these districts reported having counseling and guidance project objectives. Of these districts, 73.3% were rated effective in overcoming academic difficulties; 73.8% were rated effective in the provision of supplemental services; 61.6% were rated effective in improving attitudes toward school; 73.8% were rated effective in developing more favorable self-concepts; 49% were rated effective in improving staff attitudes and 61.2% were rated effective in improving non-Native American pupils' attitudes toward Native American pupils.

Eighty-three percent (83%) of the districts receiving grants between $10,000 and $50,000 reported guidance and counseling needs. Seventy-nine and eight tenths (79.8%) percent were rated effective in overcoming academic difficulties; 84.8% were rated effective in providing supplemental services; 85.0% were rated effective in improving attitudes toward school; 91.6% were rated effective in developing more favorable self-concepts; 81.6% were rated effective in improving staff attitudes and 63.3% were rated effective in improving non-Native American pupils' attitudes toward Native Americans.

Sixty-one percent (61%) of these districts reported counseling and guidance objectives. Of these districts, 90.9% were rated effective at overcoming academic difficulties; 90.9% were rated effective in the provision of supplemental services; 88.7% were rated effective in improving attitudes toward school; 95.5% were rated effective in the development of favorable self-concepts; 86.4% were rated effective in improving staff attitudes toward Native American pupils; and 68.2% were rated effective in improving the attitudes of non-Native American pupils toward Native American pupils.

Ninety percent (90%) of the districts receiving grants greater than $50,000 reported counseling and guidance needs. Of these districts, 88.2% were rated effective in overcoming academic difficulties; 92.3% were rated effective in providing supplemental services; 92.4% were rated effective in improving attitudes toward school; 97.8% were rated effective in developing more favorable self-concepts; 84.9% were rated effective in improving staff attitudes; and 67.7% were rated effective in improving attitudes of non-Native American pupils toward Native American pupils.

Sixty-seven percent (67%) of the districts which received grants above $50,000 had counseling and guidance objectives. Of these districts, 89.8% were judged effective in overcoming academic difficulties; 91.3% were judged effective in the provision of supplemental services; 94.1% were judged effective in improving attitudes toward school; 97.1% were judged effective in improving self-concepts; 85.5% were judged effective in changing staff attitudes; and 65.2% were judged effective in improving attitudes of non-Native American pupils toward Native American pupils.

Three target variables, mathematics, bilingual and special education, were cross-tabulated with parent committee ratings of effectiveness in overcoming academic difficulties and grant size. Ninety-two percent (92%) of the districts receiving grants below $10,000 had mathematics needs. Thirty-seven percent (37%) of the districts had mathematics objectives to match mathematics needs. A total of 39.4% of these districts had mathematics objectives and 42.1% of the districts were appropriately targeted. Of the districts reporting mathematics needs, 71.4% of these districts were rated effective in overcoming academic difficulties. Forty percent (40%) of the districts having mathematics objectives were rated effective. Eighty-eight percent (88%) of the districts receiving grants between $10,000 and $50,000 reported mathematics needs.

Thirty-nine percent (39%) of the districts had matching mathematics needs and objectives. Forty-two percent (42%) of the districts receiving grants between $10,000 and $50,000 had mathematics objectives. Forty-nine percent (49%) of the districts were appropriately targeted. Eighty-three percent (83%) of the districts receiving grants between $10,000 and $50,000 and having mathematics needs were rated effective in overcoming academic difficulties. Ninety-seven percent (97%) of the projects having mathematics objectives were judged effective. Eighty-four percent (84%) of the districts receiving grants of over $50,000 reported mathematics needs. Forty-seven percent (47%) of the districts receiving grants over $50,000 have matching mathematics needs and objectives. Fifty-eight percent (58%) of the districts in this grant size category were targeted appropriately. Of the districts reporting mathematics needs, 91.8% were judged effective. Of the districts having mathematics objectives, 85.2% were judged effective.

In terms of bilingual education, 28.9% of the districts receiving grants of below $10,000 reported bilingual needs. Twenty-five percent (25%) of the districts receiving grants between $10,000 and $50,000 reported bilingual needs and 40.8% of the districts receiving grants of above $50,000 reported bilingual needs. Only 2.6% of the districts receiving grants below $10,000 had matching bilingual needs and objectives. Likewise, 1.4% of the districts receiving grants between $10,000 and $50,000 and 13.6% of the districts receiving grants of over $50,000 had matches between bilingual needs and objectives. Of the districts reporting bilingual needs and receiving grants of less than $10,000, 63.6% were judged effective; of those reporting bilingual needs and receiving grants between $10,000 and $50,000, 66.8% were judged effective; and of the districts reporting bilingual needs and receiving grants greater than $50,000, 90% were judged effective.

Of the districts having bilingual education objectives and receiving grants of less than $10,000, all were judged effective; of the districts having bilingual education objectives and receiving grants between $10,000 and $50,000, all were judged effective; and of the districts having bilingual education objectives and receiving grants of over $50,000, 79.8% were judged effective in overcoming academic difficulties.

Thirty-one percent (31%) of the districts receiving grants below $10,000 reported special education needs while 2.6% of these low grant districts had special education objectives. Forty-six percent (46%) of the districts receiving grants of between $10,000 and $50,000 reported special education needs and 8.3% of the intermediate grant districts had special education objectives. Fifty-three percent (53%) of the districts receiving grants of over $50,000 reported special education needs and 4.7% of these districts had special education objectives. Appropriate targeting in the districts receiving grants between $10,000 and $50,000, 61.1%; and for districts receiving grants above $50,000, 47.6%. Effectiveness ratings for districts reporting special education needs are as follows: for districts receiving grants below $10,000, 83.4%; for districts receiving grants between $10,000 and $50,000, 81.8%; and for districts receiving grants over $50,000, 90.8%. Of the districts reporting special education objectives, for districts receiving grants of less than $10,000, 100%; for districts receiving grants between $10,000 and $50,000, 100%; and for districts receiving grants over $50,000, 84.2%.

Five target variables were crosstabulated with the ratings of effectiveness in providing supplemental services. They included industrial objectives, agriculture objectives, service occupations, business objectives, and domestic objectives. District percentages for key subdivisions will be reported for districts receiving grants below $10,000, districts receiving grants between $10,000 and $50,000 and districts receiving grants for over $50,000, respectively. For industrial education districts, the industrial education needs were: 73.7%, 69.5%, and 71.8%. Those districts reporting a match between needs and objectives were: 0%, 4.2%, and 12.6%. Targeting percentages for the districts in industrial education were: 26.3%, 29.2%, and 37.8%. Of the districts reporting needs in industrial education: 85.6%, 87.9%, and 64.1% were judged effective. Of the districts reporting objectives in industrial education: 0%, 100% and 87.7% were rated effective.

In regard to agricultural education, the districts reporting needs were: 57.9%, 51.4%, and 52.5% respectively; the districts reporting a match between needs and objectives were: 0%, 1.4% and 4.9% respectively. Targeting percentages for the districts were: 42.1%, 44.5% and 50.5% respectively. Of the districts reporting needs in agriculture education, 86.3%, 89.2%, and 90.4% were judged effective in the provision of supplementary services. Of the districts reporting agricultural objectives, 0%, 100%, and 100% were judged effective.

In regard to service occupation education, the districts reporting needs were: 55.3%, 65.3% and 65.1% respectively. The districts reporting a match between needs and objectives were: 0%, 2.8%, and 10.7% respectively. The targeting percentages were: 44.7%, 34.7% and 41.8%. Of the districts reporting needs in service occupation education: 81%, 89.2%, and 80.2% were judged effective. Of the districts reporting service occupation education objectives: 0%, 100% and 88.3% were judged effective.

In regard to business education, the districts reporting needs were: 63.2%, 72.2% and 74.7% respectively. The districts reporting needs and objectives, matches were: 0%, 5.6% and 18.4% respectively. Targeting percentages were: 36.8%, 30.6% and 41.7% respectively. Of the districts reporting needs in business education: 87.5%, 65.3% and 66.9% were judged effective. Of the districts reporting objectives in business education: 0%, 70% and 91.1% were judged effective.

In regard to domestic education, the districts reporting needs were: 65.8%, 69.5%, and 73.8% respectively. The districts reporting need and objective matches were: 0%, 4.2% and 13.6%. Targeting percentages were: 34.2%, 32.0% and 38.8% respectively. Of the districts reporting domestic needs: 87.9%, 89.7% and 67% were judged effective. Of the districts reporting domestic education objectives: 0%, 100%, and 93.1% were rated effective.

Two targeting variables, attendance and attitudes toward school, were crosstabulated with effectiveness ratings by the parent committee in regard to improving attitudes toward school of Native American pupils. In regard to attendance, the districts reporting needs were: 68.4%, 83.3% and 84.4% respectively. Districts reporting matches between attendance needs and objectives were: 15.8%, 45.8%, and 48.5% respectively. Targeting percentages were: 39.5%, 55.5%, and 59.2% respectively. Of the districts reporting attendance needs: 80.8%, 85.1% and 93.1% were judged effective. Of the districts reporting attendance objectives: 78%, 95%, and 94.3% were judged effective.

In regard to the improvement of attitudes toward school, the districts reporting needs were: 76.3%, 84.7%, and 88.3% respectively. The districts reporting matches between needs and objectives were: 26.3%, 47.2%, and 56.3% respectively. Targeting percentages were: 47.4%, 52.8%, and 58.2% respectively. Of the districts reporting changes in attitudes toward school needs, 76%, 85.3%, and 93.4% were judged effective. Of the districts reporting objectives in improving attitudes toward school, 73%, 92.2%, and 93.4% were judged effective.

Four targeting variables were crosstabulated with effectiveness ratings on the development of more favorable self-concepts in Native American pupils. These targeting variables included: self-concept, responsibility and self-direction, attitude toward peers, and personal ambition.

In regard to the self-concept area, districts reporting needs in self-concept development were: 76.3%, 84.7%, and 88.4% respectively. Districts reporting a match between needs and objectives were: 34.2%, 48.6%, and 58.3% respectively. Targeting percentages were: 57.9%, 55.5%, and 67.0% respectively. Of the districts reporting needs in self-concept development: 95.3%, 91.8%, and 97.7% were judged effective. Of the districts reporting objectives directed toward the development of favorable self-concepts: 92.3%, 95.2%, and 96.7% were judged effective.

In regard to the responsibility and self-direction area, districts reporting needs were: 79%, 87.5%, and 90.3% respectively. Districts reporting matches between needs and objectives were: 21.1%, 40.3%, and 52.4%. Targeting percentages were: 36.9%, 47.2%, 59.2% respectively. Of the districts reporting needs: 80%, 92% and 97.7% were judged effective. Of the districts reporting objectives: 90.1%, 94.1%, and 96.3% were judged effective.

In regard to the area improvement of attitudes toward peers: 52.6%, 76.4%, and 76.7% districts reported needs respectively. Districts reporting matches between needs and objectives were: 15.8%, 40.3%, and 43.7% respectively. Targeting percentages were: 55.3%, 57%, and 57.3% respectively. Of the districts reporting needs: 79.8%, 90.9%, and 98.6% were judged effective. Of the districts reporting objectives: 88.6%, 97.2%, and 96.2% were judged effective.

In regard to the area of personal ambition, districts reporting needs were: 81.6%, 87.5%, and 89.3% respectively. Districts reporting matches between needs and objectives were: 18.4%, 37.5%, and 45.6% respectively. Targeting percentages were: 36.8%, 45.8%, and 53.4% respectively. Of the districts reporting needs: 83.8%, 93.6%, and 97.8% were judged effective. Of the districts reporting objectives: 85.8%, 93.2%, and 96% were judged effective.

Two service area targeting variables were crosstabulated with ratings of effectiveness in provision of supplemental educational services made by parent committee members. These service areas included medical and dental services and psychological services.

In regard to medical and dental services, districts reporting needs were: 63.2%, 65.5%, and 65.1% respectively. Districts reporting matches between needs and objectives were: 7.9%, 15.3%, and 20.4% respectively. Targeting percentages were 42.1%, 57%, and 48.6% respectively. Of the districts reporting needs: 83.3% 89.7%, and 94% were judged effective. Of the districts reporting objectives: 75.2%, 99.4%, and 96.3% were judged effective.

In regard to psychological services, districts reporting needs were: 52.6%, 56.9%, and 63.1% respectively. Districts reporting matches between needs and objectives were: 2.6%, 12.5%, and 13.6%. Targeting percentages were: 44.7%, 50%, and 42.7% respectively. Of the districts reporting needs: 95%, 85.5%, and 100% were judged effective. Of the districts reporting objectives: 65.8%, 100% and 100% were judged effective.

4.2.3 Feasibility Of Impact Evaluation

Three research models were applied to test the feasibility of impact evaluation. They were: (1) the Glass model of meta-analysis to summarize separate studies empirically; (2) a MANOVA model based upon field judgment, and (3) an ANCOVA model based upon pupil achievement data and participation in objectives.

The Glass Model

Glass, in his 1976 presidential address to the annual conference of the American Educational Research Association, proposed an empirical meta-analysis model for the summary of results of separate research studies. This model required the use of either a pretest-post test control group design or a randomized post test only control group design. The model proposed was metric-free in that it utilized the distribution of normalized difference scores. The achievement test scores collected on an Indian/non-Indian subsample within districts permitted a feasibility test of impact using this model. This model was proposed since different tests were used across districts. This test was run for both reading and mathematics scores for the 4th, 7th, and 12th grades.

For the 4th grade, 39 districts reported usable pretest-post test data (1975-1976 achievement test scores for a number n=10 to 15 Indians and non-Indian students). Table IV-61* illustrates the results of the application of the Glass meta-analysis model to the reading and mathematics achievement tests comparing the distribution of the difference of the "gain" scores between Indians and non-Indians. t-coefficients for the mean difference in "gain" scores distributions from zero are t = -0.75 and t = -1.0^{o} (t having 38 degrees of freedom). It can be noted that there was only a slight non-significant difference in gain, indicating that neither groups' progress was superior to the other. In this case near equal progress denoted a plus in favor of the IEA Title IV Part A projects.

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*Table(s) referenced appear in Appendix A of the Final Report of this Study.

Table IV-62* displays the same comparisons on 7th grade reading and mathematics scores. Again, no significantly different t coefficients, t = 0.99 for reading and t = -1.60 for mathematics, were obtained with n = 31 districts for reading and n = 28 districts for mathematics. In this case, the near zero means were of opposite sign, and differential progress could not be assumed.

Table IV-63* displays the same analysis for grade 12, but only four districts reported usable data. The means of the distributions were both positive, but non-significant.

Results of this analysis suggested that if more equivalent comparison groups (Indians in the project and Indians not in the project) were obtained and a controlled testing situation were imposed, that impact evaluation may be feasible in reading. The results of the Glass model do not indicate positive results in that Indian children in the project did not progress at a more rapid rate than non-Indian children, but given that, to date, this rate was not as great, inference of some project impact can be made.

Due to the absence of more than half of the achievement test data across districts and due to the existence of only 20% of the districts possessing data of adequate quality for analysis, the test of feasibility of impact is inconclusive. The Metropolitan Achievement Test in reading was shown to discriminate across projects with reading objectives, but not across projects with objectives in mathematics. Likewise, more significant trends across program participants were found in reading, but not in mathematics. It appears that if more complete data could be gathered, then a standardized test in reading could be found to discern program effects. Similar hope is not maintained, however, in the area of mathematics, where there are fewer projects and project participants.

MANOVA TEST

A second investigation of feasibility of impact evaluation was made using the general linear models procedure for the multivariant analysis of variance upon multiple judgements of project success. Three MANOVA's were run using a one-way classification and two dependent variable models. The independent variable was whether or not the objective in question was implemented in a given project. The two dependent variables were independent ratings of project success or effectiveness made by staff and parent committee members.

Three MANOVA models were run. They involved the remedial reading objective with ratings of the effectiveness of the projects in overcoming academic problems, the remedial mathematics objective with ratings of the effectiveness of the projects in overcoming academic problems, and the self-concept objective with ratings of the effectiveness of the projects in developing more favorable self-concepts in Native American pupils.

The MANOVA program generated standard analysis of variances tests on each of these dependent variables, and provided the multivariant analysis using Wilks' criterion for the determination of significance. All three tests were reported for each MANOVA.

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*Table(s) referenced appear in Appendix A of the Final Report of this Study.

Table IV-64* displays the statistics for the analysis of the impact of the reading objective. An $F(1,211) \geq 8.89$ for $p < .05$. The parent committee ratings do not approach significance in the univariate analysis. The staff ratings, however, produced an $F(1,211) = 5.89$ which was significant at the $p = .05$ level. The multivariate analysis produced an $F = 3.28$ which was also significant at the $p = .05$ level. An $F(2,210) \geq 3.04$ for $p < .05$. This analysis indicated that projects with reading objectives were rated more effectively in overcoming academic difficulties than were projects which did not have reading objectives.

An exact analysis as was reported was made using the mathematics objective. No significance was found in any of the three tests. (Table IV-65)*

Although the finding of significance in reading programs was made on project ratings, this result offers some credence to the Glass results. Here, the completeness of the data is much larger so as to include more than 90% of the data. Again, no similar hope for mathematics is maintained.

Given that a suitable self-concept inventory could be identified (only five districts reporting using self-concept scales and three of these showed positive gains), the MANOVA on ratings suggests the potential of impact evaluations in the self-concept area.

A third MANOVA was run on the self concept objective. Again, the parent committee ratings failed to produce a significant F ratio; $F(1,211) = 3.78$ whereas $F(1,211) \geq 3.89$ for $p < .05$. The staff ratings, however, produced a significant F ratio; $F(1,211) = 17.36$ whereas $F(1,211) \geq 8.39$ for $p < .05$. The combined multivariate test produced an $F(2,210) = 8.85$ whereas $F(2,210) \geq 3.04$ for $p < .05$. This analysis indicates that projects having the self-concept objective produced more impact in the development of favorable self-concepts in Native American pupils than did the projects which did not have the self-concept objectives. (Table IV-66)*

THE ANCOVA MODEL

As a third alternative to a feasibility test, four analyses of covariance were run on the achievement tests with the greatest frequency of use. Six were planned but there were not enough reading and mathematics scores for the 12th grade to conduct an analysis of covariance. Hence, tests on reading and mathematics achievement scores in the 4th and 7th grade were conducted using SRA's grade equivalents, the most frequently reported scores.

*Table(s) referenced appear in Appendix A of the Final Report of this Study.

Tables IV-67* through IV-70* report the results of these two-way analysis of covariance tests. SRA grade equivalent scores 1976 were used as the dependent variable, 1975 SRA's grade equivalent scores were used as a covariable, the subjects were grouped as to whether or not they were in a project having an objective appropriate to the test — reading to reading scores, mathematics to mathematics scores, and were also grouped as to Indian/non-Indian. In all four tests — two for the 4th grade and two for the 7th grade, the covariable explained most of the variance, hence no differences between groups or any effects were found. In all cases means were similar enough to post no differences.

Although no significant difference in reading score differences were found in the application of the Glass Meta Evaluation Model, slight significant differences in the MANOVA model comparisons of reading project ratings, and slightly larger covaried gains on achievement tests for Indians receiving reading programs over non-Indians in the same districts on the ANCOVA model were found. These findings provide the basis to infer that impact evaluation of reading projects appears feasible. Since both methodologies using achievement data involved a large loss of power due to small samples, the absence of a common metric and the existence of non-equivalent comparison groups and since all three tests showed some signs of project effect in reading, it was concluded that an impact evaluation in reading using a standardized test, mandated testing procedures and recording formats, and required large samples should produce discernable program effect.

No hope appears for impact evaluation of mathematics programs due to their lower participation levels and their lower frequencies in combination with the three reported sources of lost power. Common metrics which would discern project differences in mathematics could not be expected from any of the feasibility tests.

MANOVA results of differences in ratings of projects to improve self-concepts and the existence of three reported local evaluations of empirically discriminated changes in self-concept from five reported evaluations of self-concept projects suggest the feasibility of impact evaluation in regard to improvement of self-concepts. The feasibility of the impact evaluation of self-concepts appears to depend upon the identification of a discriminating self-concept scale, the control of its administration and reporting and the use of a large study sample.

* Table(s) referenced appear in Appendix A of the Final Report of this Study

4.2.4 Analysis Of Eligible Unfunded Projects

A matching sample of eligible but unfunded districts was surveyed relative to their reasons for non-participation. A response of n = 139 or 62.3% of the original sample was obtained. Of the responding sample, 80.6% responded that they were knowledgeable about Title IV, Part A. One percent (1%) had heard about the program, but did not feel knowledgeable. Eighteen percent (18%) failed to answer the question.

In response to the question of whether or not they knew about their eligibility, 83.5% responded that they did, 10.8% were not informed and 5.8% failed to answer the question. Nineteen percent (19%) of the unfunded districts had made formal applications for funding; 77% did not apply, and 4.3% failed to answer the question.

In response to the questions concerning the reason for not applying, 22.3% failed to answer this question. Most of the respondents had in fact made applications and simply skipped to the question concerning reasons for the rejection of these applications. The most frequent reason for not making the application was reported to be too few Native American pupils, given by 21.6% of the districts. Nine percent (9%) of the districts reponded that they believed that their present program was adequate for all students. Eight percent (8%) were not aware of their eligibility and 7.9% believed that the grant amount did not justify the administrative effort. Other reasons included: 6.5% due to a board of education decision; 5% reported that the Indian community had not interacted; 4.3% did not apply because of a denial on previous years; 4.3% simply missed the completion deadline; 3.6% felt that the Indian community was not adequately defined; 2.9% felt that the funding was too limited; and 0.7% gave varying reasons: including inadequate staffing, unsurety of Indian certification, that they participated in a consortium, hence no direct funding was needed; because the previous year program was funded so late; and they were not aware of a reason. Only 0.7% of the unfunded sites reported that they were funded. Only 5% of the districts prepared an application, but failed to submit it.

Of the 18.7% of the districts which applied unsuccessfully for funding, 2.9% were given reasons for non-funding that non-Indians were not allowed in the program and 2.9% failed to understand why they were rejected. Other reasons for rejection included: 1.4% which failed to meet guidelines, 1.4% entered a late submission, and 0.7% gave no reason.

Thirty-five percent (35%) of the unfunded districts have organized Indian education constituencies in their community and 56.1% do not know of Indian community organization for education. Forty-six percent (46%) of the districts reported that the Indian community was aware of the Title IV eligibility; 25.9% reported that the Indian community was uninformed. Only 21.6% of the Indian communities in the unfunded districts expressed a desire to apply to the Part A program. The reasons given for the Indian community not applying were: 6.5% had too few Native American students, 5.8% had no interest; 4.3% had no defined Indian community, 4.3% reported that present programs were adequate, 2.2% reported previous denials, 2.2% reported missed completion deadline, 2.2% were not aware of eligibility, 1.4% felt that the grant was not worth administrative costs, 0.7% reported too limited funding, 0.7% reported board of education decision, 0.7% were unsure of Indian certification, and 0.7% reported had no consortium arrangements.

The unfunded districts reported that the following other federal programs were in their district: 57.6% ESEA Title I, 12.9% Johnson O'Malley, 1.4% ESEA Title IV, and 1.4% Special Education/Handicapped. These programs provided: 41.0% remedial reading, 11.5% remedial general academic, 3.6% counseling and guidance, 2.9% special education/handicapped, 2.2% curriculum enrichment and development, 1.4% cultural enrichment and Indian heritage, 1.4% arts, crafts, and fine arts, 1.4% teacher aides, 0.7% provision of learning materials, 0.7% parent and community involvement, and 0.7% staff development and Indian awareness. Thirty percent (30%) of the districts reported that they have Native American staff.

When asked how Native American pupils compared with non-Native American pupils, 16.5% of the districts failed to respond. The following responses were gained: 64.0% similar to non-Native American students, 13.7% below non-Native American students, 3.6% above non-Native American students, 1.4% academics were average, dropouts high, and 0.7% dropout.

4.2.5 Analysis of Financing of Indian Education

As part of the National Evaluation Survey of Projects Funded Under Title IV, Part A, an analysis of financing of programs for Indian Education was performed. The primary sources of data for this analysis were the Survey of Local Government Finances - School Systems, 1974-1975 (ELSEGIS IX) and the 1970 Census Fourth Count (Population) School District Data Tapes. The analysis was based on information derived from a merger of these tapes.

Information on a total of 4,875 school systems was available from this combined data source. However, 63 school systems were dropped from the analysis since they did not provide information on average daily membership. From the total, sample information was available on 1,209 school systems for which the Office of Indian Education has identified enrollment of one or more Indian students. A subsample of 121 of these school systems had reported Indian enrollment of over 10 percent of total enrollment.

Tabular presentation and analysis was based on six enrollment-size groups based on average daily membership (ADM): 25,000 or more, 10,000 to 24,999, 5,000 to 9,999, 2,500 to 4,999, 300 to 2,499 and under 300. Sampling information (including the universe for school districts with Indian enrollment), the samples and number of systems grouped in each enrollment category are presented in Table IV-71.

TABLE IV–71
SAMPLE ENROLLMENT CATEGORY STRATIFICATION

	25,000 or More	10,000 – 14,999	5,000 – 9,999	2,500 – 4,999	300 – 2,499	Under 300
All Districts	170	440	910	1287	1937	68
Without Indian Enrollment	19	189	629	1052	1653	61
With Indian Enrollment: (10% or less)						
Universe	155	299	317	510	781	107
Sample	151	247	272	214	202	2
(Over 10%)						
Universe	0	5	9	25	350	271
Sample	0	4	9	21	82	5

The analysis focused on three areas: (1) a comparison of characteristics of school districts with reported Indian enrollments and those without, (2) a comparison of total per pupil expenditures in school districts with reported Indian enrollment and those without, and (3) a comparative analysis of federal, state and local contributions to total revenue per pupil. The first was directed primarily toward development of preliminary findings concerning the relative levels of poverty in school districts with and without Indian enrollments. The second was directed towards developing findings concerning overall fiscal equity. The third concerned an assessment of possible federal impact on school districts with Indian students, vis-a-vis those without Indian students.

4.2.5.1 School District Characteristics

As shown in Table IV-71, the Office of Indian Education had identified 2,829 school districts in the school year 1974-1975 in which one or more Indian students were enrolled. In only 660 school districts do Indian students represent a significant minority (over ten percent of total enrollment) or a majority of total enrollment. The distribution of school districts with reported Indian enrollment greater than 10 percent of total enrollment by enrollment category and state is shown in Table IV-72. As shown, significant Indian enrollment is concentrated almost entirely in school districts with total enrollments of less than 2,500: 621 of the total 660. Over half (339) of these districts are in Oklahoma, 55 are in Arizona, 48 are in Montana and only four other states (California, Washington, Alaska and South Dakota) have over twenty districts with over ten percent Indian enrollment.

TABLE IV-72
DISTRIBUTION OF SCHOOL DISTRICTS WITH SIGNIFICANT INDIAN ENROLLMENT BY ENROLLMENT CATEGORY AND STATE

State	15,00 or More	10,000 – 24,999	5,000 – 9,999	2,500 – 4,999	300 – 2,499	Under 300	Total
Alaska	–	1	2	2	15	10	30
Arizona	–	–	2	2	35	16	55
Arkansas	–	–	–	–	3	–	3
California	–	–	–	1	13	15	29
Colorado	–	–	–	–	2	1	3
Idaho	–	–	–	–	2	–	2
Kansas	–	–	–	–	2	1	3
Maine	–	–	–	–	–	2	2
Massachusetts	–	–	–	–	–	1	1
Michigan	–	–	1	–	10	5	16
Minnesota	–	–	–	–	6	2	8
Missouri	–	–	–	–	1	–	1
Montana	–	–	–	–	28	20	48
Nebraska	–	–	–	–	5	4	9
Nevada	–	–	–	–	3	–	3
New Mexico	–	1	2	2	10	–	15
New York	–	–	–	–	4	–	4
North Carolina	–	1	–	3	3	–	7
North Dakota	–	–	–	–	8	9	17
Oklahoma	–	1	2	10	161	165	339
Oregon	–	–	–	–	1	–	1
South Dakota	–	1	–	–	14	8	23
Texas	–	–	–	–	–	1	1
Utah	–	–	–	2	–	–	2
Washington	–	–	–	2	15	8	25
Wisconsin	–	–	–	–	6	1	8
Wyoming	–	–	–	–	3	2	5
Total	–	5	9	25	350	271	660

Source: U. S. Office of Education, unpublished data.

As shown in Table IV-73, school districts with greater than 10 percent Indian enrollment account for over half (53%) of total Indian enrollment in the United States. Nearly two-thirds (63%) of these Indian students are in school districts with total enrollments of under 2,500. The remaining Indian students (47%) are enrolled in 2,169 school districts. In most of these school districts the Indian students represent a very small minority of total enrollment.

Approximately one-fourth (26%) of total Indian enrollment in local school districts is in Oklahoma. Three other states (Arizona, California, and New Mexico) account for an additional 26 percent of total Indian enrollment in the United States.

Analysis of Census data indicates fairly significant differences in family income in school districts with no Indian enrollment and those with over ten percent Indian enrollment. In school districts with over 10 percent Indian enrollment, approximately 25 percent of all families reported family income of less than $4,000 during 1969. In school districts with no reported Indian enrollment the comparable figure was less than 15 percent.

TABLE IV–73
DISTRIBUTION OF INDIAN STUDENTS BY ENROLLMENT CATEGORY AND STATE

	Greater than 10% Enrollment Enrollment Category					
State	2,500 or More	300 – 2,499	299 or Less	Total	Less Than 10% Indian Enrollment	Total Indian Enrollment
Alaska	8,453	4,165	1,554	14,172	2,756	16,928
Arizona	8,375	10,790	849	20,014	11,455	31,469
Arkansas	–	402	–	402	844	1,246
California	457	1,961	477	2,895	27,959	30,854
Colorado	–	859	37	896	1,731	2,627
Idaho	–	334	–	334	2,066	2,400
Kansas	–	205	128	333	1,742	2,075
Maine	–	–	55	55	631	686
Massachusetts	–	–	39	39	420	459
Michigan	1,054	2,103	262	3,419	9,596	13,015
Minnesota	–	2,080	149	2,229	9,156	11,385
Missouri	–	225	–	225	647	872
Montana	–	5,866	1,590	7,456	3,751	11,207
Nebraska	–	713	177	890	1,192	2,082
Nevada	–	899	–	889	1,921	2,810
New Mexico	17,371	3,574	–	20,945	3,019	23,964
New York	–	1,808	–	1,808	4,310	6,118
North Carolina	9,783	1,125	–	10,908	4,137	15,045
North Dakota	–	2,378	848	3,226	1,077	4,303
Oklahoma	14,324	44,576	10,617	69,517	17,171	86,688
Oregon	–	693	–	693	3,226	3,919
South Dakota	1,350	4,393	457	6,200	4,143	10,393
Texas	–	–	68	68	2,481	2,549
Utah	1,762	–	–	1,762	2,464	4,226
Washington	998	2,531	878	4,407	13,707	18,114
Wisconsin	1,008	1,239	79	2,326	5,521	7,847
Wyoming	–	656	450	1,106	376	1,382
Other States & Dist. of Columbia	–	–	–	–	19,882	19,882
Total	64,935	93,575	18,714	177,214	157,381	334,495

Source: U. S. Office of Education, Office of Indian Education, unpublished data.

Another measure of relative wealth of the school districts is number of families reporting incomes below the poverty level, e.g., the number of families below the Social Security Administration Poverty Index. Different poverty income thresholds are applied for variations in family size, for farm and nonfarm families, and for families with male and female head of household. The poverty thresholds used in the 1970 Census are shown in Table IV-74.

The percent of families by the ration of family income to the poverty level is presented in Table IV-75. Data are presented for school districts without reported Indian enrollment, with less than 10 percent Indian enrollment, and greater than 10 percent Indian enrollment by enrollment category.

Analysis of these data indicates a consistent pattern: school districts with a significant minority or a majority of Indian enrollment to total enrollment have a somewhat higher percentage of families with reported income below the poverty threshold than school districts with no Indian enrollment of a relatively small Indian enrollment.

TABLE IV-74
WEIGHTED AVERAGE THRESHOLDS AT THE POVERTY LEVEL, BY SIZE OF FAMILY, SEX OF HEAD, AND BY FARM AND NONFARM RESIDENCE: UNITED STATES, 1969

Size of Family	Total	Nonfarm			Farm		
		Total	Male Head	Female Head	Total	Male Head	Female Head
All unrelated individuals	$1,834	$1,840	$1,923	$1,792	$1,569	$1,607	$1,512
Under 65 years	1,888	1,893	1,974	1,826	1,641	1,678	1,562
65 years and over	1,749	1,757	1,773	1,751	1,498	1,508	1,487
All families	3,388	3,410	3,451	3,082	2,954	2,965	2,767
2 person	2,364	2,383	2,394	2,320	2,012	2,017	1,931
Head under 65 years	2,441	2,458	2,473	2,373	2,093	2,100	1,984
Head 65 years and over	2,194	2,215	2,217	2,202	1,882	1,883	1,861
3 persons	2,906	2,924	2,937	2,830	2,480	2,485	2,395
4 person	3,721	3,743	3,745	3,726	3,195	3,197	3,159
5 persons	4,386	4,415	4,418	4,377	3,769	3,770	3,761
6 persons	4,921	4,958	4,962	4,917	4,244	4,245	4,206
7 or more persons	6,034	6,101	6,116	5,962	5,182	5,185	5,129

Source: U. S. Bureau of the Census, General Social and Economic Characteristics, 1970 Census of the Population, (PC[1]), Washington D. C.: U. S. Government Printing Office, 1971.

TABLE IV–75
PERCENTAGE OF SCHOOL DISTRICTS BY RATIO OF FAMILY INCOME TO POVERTY LEVEL AND ENROLLMENT CATEGORY

Ratio of Family Income to Poverty Level	Enrollment Category					
	25,000 or More	10,000 – 24,999	5,000 – 9,999	2,500 – 4,999	300 – 2,499	Under 300
No Reported Indian Enrollment						
N =	(19)	(189)	(629)	(1052)	(1653)	(61)
Under .50	5.0	3.7	3.9	3.8	3.2	2.9
.50 – .74	3.4	2.7	2.9	2.9	2.4	2.5
.75 – .99	4.1	3.3	3.4	3.4	3.2	3.4
1.00 – 1.24	4.7	4.9	4.0	3.9	4.0	4.5
1.25 – 1.49	5.0	4.3	4.3	4.3	4.5	4.7
1.50 – 1.99	11.1	10.2	10.0	10.2	10.9	11.7
2.00 – 2.99	23.0	23.4	22.8	23.0	24.3	23.6
3.00 or More	43.6	48.4	48.7	48.5	47.5	46.6
Indian Enrollment 10% or Less						
N =	(151)	(247)	(272)	(214)	(202)	(2)
Under .50	4.1	3.1	3.4	3.5	3.7	6.1
.50 – .74	2.6	2.1	2.5	2.4	3.1	5.2
.75 – .99	3.4	2.7	3.2	3.2	4.2	5.1
1.00 – 1.24	4.0	3.4	3.9	4.0	5.4	6.8
1.25 – 1.49	4.3	3.9	4.4	[illegible].6	6.0	7.6
1.50 – 1.99	10.0	9.8	10.6	11.4	13.2	12.2
2.00 – 2.99	21.9	23.5	23.7	24.6	25.1	20.6
3.00 or More	48.9	51.5	48.2	46.3	39.3	36.4
Indian Enrollment Greater Than 10%						
N =	–	(4)	(9)	(21)	(82)	(5)
Under .50	–	9.4	5.5	5.5	5.9	6.8
.50 – .74	–	4.9	3.8	4.4	5.3	3.2
.75 – .99	–	5.6	4.5	5.2	6.8	9.0
1.00 – 1.24	–	6.8	5.6	5.9	7.3	4.9
1.25 – 1.49	–	6.4	5.5	6.1	6.5	6.8
1.50 – 1.99	–	13.0	12.5	12.6	13.8	8.4
2.00 – 2.99	–	22.1	24.8	23.2	22.9	18.7
3.00 or More	–	31.8	37.8	37.1	31.5	42.2

Source: 1970 Census Fourth Count (Population) School District Data Tapes

In school districts in the sample with over 10 percent reported Indian enrollment the percentage of families below the poverty threshold (less than 1.00) ranged from about 14 percent to 19 percent. For comparable enrollment categories in school districts without Indian enrollment the percentage of families below the poverty threshold approximated 8-9 percent. In most enrollment categories nearly twice as many families reported incomes below the poverty level in school districts with significant Indian enrollment than in school districts without reported Indian enrollment. In school districts without reported Indian enrollment or less than 10 percent of total enrollment, the percentage of families' incomes below the poverty level is approximately the same as school districts with no reported Indian enrollment.

Although the differences in family income cited above are significant they understate the magnitude of differences between Indian families and the nation as a whole. For example, 1970 Census figures indicate that 33.3 percent of all Indian families had incomes below the poverty level compared to 8.1% for the nation as a whole. Over 38 percent of all persons in the Indian community had reported family income below the poverty level compared to 11.6 percent for the total population. A comparison of family income and poverty status for Indian families and the total population is presented in Table IV-76. The percent of families by ratio of family income to poverty level is shown. The differences are obvious. It can be noted that the pattern for the total population is very similar to that exhibited by school districts without reported Indian enrollment as shown in Table IV-75. The pattern for Indian families indicates a much lower family income than exhibited for school districts with 10 percent or greater reported Indian enrollment.

4.2.5.2 Per Pupil Expenditures

In the discussion of per pupil expenditures we must note at the outset the significant variations across states. Aggregate data for 1974-75 of per pupil current operation expenditures by major function and by state are provided in Table IV-77. These figures are based on average daily attendance. Seventy percent of Indian children enrolled in school districts with 10% or greater Indian enrollment are from four states - Oklahoma, Arizona, New Mexico, or Alaska. The first three of these states exhibit lower than average per pupil expenditures and the last much higher than average per pupil expenditures. Further, the first three have relatively low total revenues per pupil and Alaska has very high costs.

TABLE IV–76
FAMILY INCOME AND POVERTY STATUS IN 1969 TOTAL POPULATION AND INDIAN POPULATION PERCENT OF FAMILIES BY RATIO OF FAMILY INCOME TO POVERTY LEVEL

Ratio of Family Income to Poverty Level	Total U. S. Population (%)	Indian Population (%)
Under .5	2.6	14.7
.5 – .74	2.3	9.4
.75 – .99	3.1	9.2
1.00 – 1.24	4.0	9.1
1.25 – 1.49	4.5	7.7
1.50 – 1.99	10.8	13.0
2.00 – 2.99	23.9	18.2
3.00 or More	48.7	18.7

Source: Bureau of the Census, "1970 Census of Population" Subject Report PC(2)–1F, "American Indians", 1973.

Bureau of the Census, "1970 Census of Population" "Detailed Characteristics", U. S. Summary PC(1)–D1, 1973.

TABLE IV–77
CURRENT EXPENDITURE PER PUPIL IN AVERAGE DAILY ATTENDANCE AT THE LOCAL LEVEL FOR REGULAR PROGRAMS IN FREE PUBLIC ELEMENTARY AND SECONDARY EDUCATION, BY MAJOR FUNCTION AND BY STATE AGGREGATE UNITED STATES, 1974–75

Selected Sites	Total	Major Function					
		Administration	Instruction	Attendance and Health Services	Transportation Services	Plant Operation and Maintenance	Fixed Charges
1	2	3	4	5	6	7	8
50 States & D.C.	$1,290	$ 48	$879	$12	$ 52	$148	$151
Alaska	2,313	138	1,604	5	111	334	120
Arizona	1,144	40	819	–	30	139	116
Arkansas	810	36	554	5	45	81	89
California	1,292	38	920	9	28	140	158
Colorado	1,239	43	872	13	46	138	126
Idaho	959	35	646	4	46	115	113
Kansas	1,196	46	807	7	52	137	149
Maine	1,034	35	760	6	72	128	32
Massachusetts	1,395	52	1,035	16	69	182	42
Michigan	1,484	52	977	8	57	190	201
Minnesota	1,480	52	985	13	92	165	173
Missouri	1,093	39	778	9	56	128	83
Montana	1,267	46	884	8	58	143	128
Nebraska	1,200	61	819	7	39	146	132
Nevada	1,138	28	814	9	43	150	94
New Mexico	1,026	33	706	8	51	121	107
New York	2,229	87	1,365	28	113	209	428
North Carolina	1,000	25	729	3	37	89	118
North Dakota	1,038	46	694	2	82	126	87
Oklahoma	966	38	641	5	40	121	121
Oregon	1,418	47	957	5	63	188	157
South Dakota	999	46	683	4	58	113	95
Texas	974	55	731	11	21	108	48
Utah	957	18	646	5	28	109	151
Washington	1,336	40	985	8	65	175	63
Wisconsin	1,355	36	905	6	62	149	196
Wyoming	1,360	73	915	19	80	154	119

Source: National Center for Education Statistics, "Revenues and Expenditures for Public and Elementary and Secondary Education, 1974–75," 1976.

The distribution of the sample of school districts with over 10 percent enrollment by enrollment category and selected states is shown in Table IV-78. As shown, 80 of the 121 school districts are from Alaska, New Mexico and Oklahoma. Oklahoma alone accounts for 55 of the school districts; 47 of the total 82 in the important 300 to 2,499 enrollment category. This distribution is not unexpected given the distribution of school districts in the universe (see Tables IV-72 and IV-73) but must be considered carefully in interpreting the ELSEGIS survey findings. It should also be noted that, with the exception of the under 300 enrollment category, the sample provides adequate coverage of the universe to justify some inferences from the data.

TABLE IV–78
DISTRIBUTION OF SAMPLE OF SCHOOL DISTRICTS WITH OVER 10% INDIAN ENROLLMENT BY CATEGORY AND SELECTED STATES

	Enrollment Category						
	25,00 or More	10,000 – 24,999	5,000 – 9,999	2,500 – 4,999	300 – 2,499	Under 300	Total
Universe	–	5	9	25	350	271	660
Sample	–	4	9	21	82	5	121
Alaska	–	–	2	3	8	4	17
New Mexico	–	1	2	3	1	0	7
Oklahoma	–	1	2	6	47	0	55
Other States	–	2	3	9	26	1	41

Source: ELSEGIS IX data tapes.

Current operation expenditures per pupil (ADM) by Indian enrollment and enrollment category are shown in Table IV-79. School districts with over 10 percent Indian enrollment exhibit lower per pupil expenditures than districts reporting no Indian enrollment. This finding is consistent across enrollment categories with the exception of the under 300 category. In this category four of the five LEA's in the sample are from Alaska. However, these data do not support an hypothesis that school districts with significant Indian enrollment have lower per pupil expenditures than other school districts within their states. Conversely, detailed analysis of school district data from selected states (Oklahoma, New Mexico and California) do not support a contention that school districts with significant Indian enrollment have a higher per pupil expenditure than other school districts within the state. Review of data within states indicated significant variation in per pupil expenditures for all school districts.

TABLE IV-79
CURRENT EXPENDITURES PER PUPIL IN AVERAGE DAILY MEMBERSHIP BY INDIAN ENROLLMENT AND TOTAL ENROLLMENT CATEGORY
1974–1975

	Enrollment Category					
Indian Enrollment	25,000 or More	10,000 – 24,999	5,000 – 9,999	2,500 – 4,999	3000 – 2,499	Under 300
No Reported Indian Enrollment						
N =	19	189	629	1052	1653	61
Per Pupil Expenditure	$ 996	$1,145	$1,102	$1,110	$1,099	$1,242
10% or Less						
N =	151	247	272	214	202	2
Per Pupil Expenditure	$1,117	$1,127	$1,099	$1,091	$1,032	$1,322
Greater Than 10%						
N =	0	4	9	21	82	5
Per Pupil Expenditure	0	$ 939	$ 940	$1,062	$1,048	$2,663

Source: ELSEGIS IX data tapes.

The comparsion of per pupil expenditures, taking into account state differences, indicated no significant differences overall between school districts with Indian enrollment and national patterns. The question remains of whether the lower expenditures per pupil in states with large numbers of Indian students reflects differences in real costs or a reduced level of resources being directed toward education programs in the school districts.

Detailed analysis was also undertaken to determine whether there were any differences in the distribution of per pupil expenditures by major function. In all enrollment categories the percent of total expenditures attributed to instruction followed national patterns, i.e., approximately 70 percent of total expenditures. No differences were noted for school districts with significant Indian enrollments. These findings do not support an hypothesis that school districts with significant Indian populations provide a higher level of transportation, attendance or health services.

These findings do not support the conclusions reached by the American Indian Policy Review Commission based on analysis of 1970-1971 ELSEGIS data that "school districts with significant Indian enrollments are not receiving sufficient funds from all sources to assure equitable educational opportunities." However, given the fact that over 70 percent of Indian students in public schools can be classified as "disadvantaged" and over 40 percent live in families with incomes below the poverty level, the question remains whether school districts with significant Indian enrollment have adequate resources to meet the special needs of Indian students. We feel that an answer to this question based solely on a criterion of fiscal equity may not be adequate.

4.2.5.3 State, Local and Federal Contributions to Revenue

Revenues per pupil are presented in Table IV-80. The revenue per pupil exhibits a pattern similar to expenditures per pupil for the same enrollment categories. Generally revenues slightly higher than the expenditure figures. We might note that the revenue figures used in the analysis excluded tuition and transportation fees, interest earnings, gross receipts from sale of school lunches, and miscellaneous other revenues. Our analysis indicated that these revenues were consistent across enrollment categories and Indian enrollment categories - approximately $70 - 100 per pupil.

TABLE IV–80
REVENUE PER PUPIL (ADM) BY ENROLLMENT CATEGORY AND INDIAN ENROLLMENT

	Enrollment Category					
Indian Enrollment	**25,000 or More**	**10,000 – 24,999**	**5,000 – 9,999**	**2,500 – 4,999**	**3000 – 2,499**	**Under 300**
No Reported Indian Enrollment						
N =	19	189	629	1052	1653	61
Revenue Per Pupil	$1,174	$1,351	$1,329	$1,341	$1,386	$1,796
10% or Less						
N =	151	247	272	214	202	2
Revenue Per Pupil	$1,311	$1,314	$1,287	$1,264	$1,320	$1,556
Greater Than 10%						
N =	0	4	9	21	82	5
Revenue Per Pupil	0	$1,167	$1,170	$1,271	$1,308	$3,236

Source: ELSEGIS IX data tapes.

Table IV-81 presents the percent of total resources contributed by state, local and federal sources by enrollment category and Indian enrollment category. Differences can be noted between school districts with a significant minority or a majority of Indian students and other school districts in the sample.

The major difference is the significantly lower local contribution to total revenues in school districts with significant Indian enrollment. This is offset to some extent by higher state contributions to the local school district. Further, federal contributions to total revenues in these school districts is significantly higher than for other school districts in the sample.

TABLE IV–81
DISTRIBUTION OF REVENUES PER PUPIL (ADM) BY SOURCE, ENROLLMENT CATEGORY AND INDIAN ENROLLMENT

Indian Enrollment	Enrollment Category					
	25,000 or More	10,000 – 24,999	5,000 – 9,999	2,500 – 4,999	3000 – 2,499	Under 300
No Reported Indian Enrollment						
N =	19	189	629	1052	1653	61
Local	42.5	51.8	53.8	53.1	55.6	67.8
State	44.0	40.7	39.1	40.5	38.7	28.0
Federal	13.5	7.5	7.1	6.4	5.6	4.2
10% or Less						
N =	151	247	272	214	202	2
Local	46.6	48.5	48.3	47.5	48.5	63.9
State	43.5	43.9	43.8	45.8	44.2	28.1
Federal	9.9	7.6	7.9	6.7	7.3	8.0
Greater Than 10%						
N =	0	4	9	21	82	5
Local	0	19.2	36.3	29.8	29.4	21.4
State	0	53.8	48.2	53.9	50.8	68.3
Federal	0	27.0	15.5	16.3	19.8	10.3

Source: ELSEGIS IX data tapes.

In interpreting these results we must once again review differences across states. As shown in Table IV-82 there is significant variation in per pupil revenues and in the percentage from state, local and federal sources among the several states with reported Indian enrollments.

TABLE IV–82
AVERAGE DAILY ATTENDANCE AND REVENUE PER PUPIL FOR PUBLIC ELEMENTARY AND SECONDARY EDUCATION, BY SOURCE AND BY SELECTED STATE
AGGREGATE UNITED STATES, 1974–75

Selected States	Average Daily Attendance (ADA) (in thousands)	Revenue Per Pupil							
		Total		Federal		State		Local[1]	
		Dollars	Percent	Dollars	Percent	Dollars	Percent	Dollars	Percent
1	2	3	4	5	6	7	8	9	10
50 States and D. C.	41,524	$1,552	100.0	$140	9.0	$ 655	42.2	$757	48.8
Alaska	79	2,451	100.0	615	25.1	1,469	59.9	367	15.0
Arizona	470	1,512	100.0	157	10.4	683	45.2	672	44.5
Arkansas	424	994	100.0	169	16.9	489	49.2	337	33.9
California	4,532	1,519	100.0	134	8.9	607	40.0	777	51.1
Colorado	530	1,537	100.0	112	7.3	630	41.0	796	51.8
Idaho	173	1,252	100.0	118	9.4	462	36.9	673	53.7
Iowa	585	1,532	100.0	88	5.7	526	34.3	919	60.0
Kansas	424	1,445	100.0	117	8.1	547	37.9	781	54.0
Maine	228	1,225	100.0	102	8.3	541	44.1	582	47.5
Massachusetts	1,153	1,773	100.0	87	4.9	562	31.7	1,124	63.4
Michigan	1,923	1,698	100.0	112	6.6	653	38.4	933	54.9
Minnesota	810	1,671	100.0	100	6.0	924	55.3	647	38.7
Missouri	881	1,281	100.0	124	9.7	471	36.7	687	53.6
Montana	159	1,541	100.0	168	10.9	480	31.2	892	57.9
Nebraska	301	1,276	100.0	112	8.8	281	22.0	884	69.2
Nevada	124	1,379	100.0	110	8.0	485	35.2	784	56.8
New Mexico	254	1,299	100.0	249	19.1	803	61.8	247	19.0
New York	2,939	2,548	100.0	171	6.7	1,008	39.6	1,369	53.7
North Carolina	1,085	1,225	100.0	181	14.7	749	61.1	295	24.1
North Dakota	129	1,298	100.0	154	11.8	528	40.7	616	47.5
Oklahoma	556	1,154	100.0	146	12.7	566	49.0	442	38.3
Oregon	429	1,731	100.0	138	8.0	440	25.4	1,154	66.7
South Dakota	147	1,253	100.0	238	19.0	158	12.6	857	68.4
Texas	2,529	1,282	100.0	163	12.7	592	46.2	527	41.1
Utah	279	1.231	100.0	120	9.8	671	54.5	440	35.7
Washington	728	1,538	100.0	136	8.8	791	51.4	612	39.8
Wisconsin	880	1,589	100.0	68	4.3	578	36.4	943	59.3
Wyoming	81	1,504	100.0	130	8.6	492	32.7	882	58.6

[1] Local revenues include revenues from the intermediate level.

Source: NCES "Revenues and Expenditures for Public Elementary and Secondary Education 1974–75" 1976.

TABLE IV–83
FEDERAL REVENUE PER PUPIL
BY ENROLLMENT CATEGORY AND INDIAN ENROLLMENT

Indian Enrollment	Enrollment Category					
	25,000 or More	10,000 – 24,999	5,000 – 9,999	2,500 – 4,999	3000 – 2,499	Under 300
No Reported Indian Enrollment						
N =	19	189	629	1052	1653	61
Total Federal Revenue	$158	$101	$ 94	$ 86	$ 78	$ 75
Title I	53	38	35	33	28	31
SAFA	7	6	5	4	6	5
Other	98	57	54	49	44	39
10% or Less						
N =	151	247	272	214	202	2
Total Federal Revenue	$130	$100	$101	$ 85	$ 97	$125
Title I	42	32	31	26	35	43
SAFA	14	16	21	19	13	21
Other	74	52	49	40	49	64
Greater Than 10%						
N =	0	4	9	21	82	5
Total Federal Revenue	0	$315	$181	$207	$259	$334
Title I	0	53	40	55	71	66
SAFA	0	87	53	54	49	135
Other	0	175	88	108	139	133

Source: ELSEGIS IX data tapes.

Title I ESEA and SAFA combined account for approximately one half of total federal funds in school districts with over 10 percent Indian enrollment; approximately the same proportion as for other school districts in the sample. Other federal programs which provide increased funding in school districts with significant Indian enrollments were the National School Lunch and Special Milk Program, other federal aid distributed by state governments (including JOM), and other direct federal aid (including IEA Title IV Part A).

Johnson O'Malley and IEA Title IV Part A funds were not broken out separately in the ELSEGIS data tapes. Title IV Part A was included in the category "all other direct federal aid". This category was somewhat higher in school districts with over 10 percent Indian enrollment than other school districts in the sample. However, with the exception of the under 300 category the total per pupil revenues from this other source ranged from only $9 to $22. In other school districts in the sample corresponding figures ranged from $3 to $7.

Three states (Alaska, New Mexico and Oklahoma) which account for over 60 percent of total Indian enrollment in school districts with over 10 percent Indian enrollment exhibit local contributions to total revenues which are significantly below the national average. Two of the states (Alaska and New Mexico) have higher federal contributions to total revenues than the national average. It should be noted, however, that Oklahoma's per pupil revenue from federal sources ($146) is fairly close to the national average ($140).

Review of the distribution of school districts by state within each of the enrollment categories for school districts with over ten percent Indian enrollment indicated that the differences in local contributions reflect only partially the financing patterns in the states in which the majority of these districts are located. This finding supports an hypothesis that many of the school districts with significant numbers of Indian students are relatively "poor", i.e., have limited local resources.

Review of state contributions indicated no significant variations from what would be anticipated from financing patterns in the states in which Indian students are enrolled. Thus, differences primarily reflect variations in local contributions among the states and a somewhat lower local contribution from local sources in school districts with significant Indian enrollment.

Conversely, the federal contribution to school districts with significant Indian enrollment is greater both in absolute and relative terms than for other school districts. The difference overall is approximately $150 per pupil. The federal contribution is higher than would be anticipated due to differences among the states alone.

4.2.5.4 Federal Contributions to Revenue

Table IV-83 presents federal revenues per pupil by enrollment category. Also presented is the distribution of total federal funds for Title I ESEA, SAFA and all other programs. As shown in this table the differences between school districts with 10 percent or less Indian enrollment and those reporting no Indian enrollment are very small. School districts with greater than 10 percent Indian enrollment, however, have somewhat higher per pupil federal revenues. Among enrollment categories these differences range from about $90 per pupil more for the 5,000 to 9,999 enrollment category to over $200 for the over 10,000 to 24,999 and under 300 categories.

Higher funding levels were exhibited for Title I ESEA, SAFA and other federal programs for each enrollment category in school districts with over 10 percent Indian enrollment compared to school districts with 10 percent or less Indian enrollment an no reported Indian enrollment. An order of magnitude difference can be noted for Impact Aid (SAFA) funds for school districts with greater than 10 percent Indian enrollment compared to school districts with no reported Indian enrollment. Title I ESEA funds, while higher compared to school districts with no Indian enrollment, are not as different as could be anticipated given the lower family incomes associated with school districts with significant Indian enrollment.

A larger difference was noted for the category "other federal aid distributed by state governments" which includes Johnson O'Malley funds. School districts with over 10 percent Indian enrollment reported average revenues for this "other" category of $40 to $70 (per pupil). Corresponding figures for other school districts in the sample ranged from an average revenue of $6 to $12.

4.2.5.5 Conclusions

The 1974-75 ELSEGIS data do not support an hypothesis that school districts with significant Indian enrollments receive a disproportionately small share of total revenues from combined state, federal and local sources. Conversely they do not support a contention that such school systems receive significantly larger financial support than other school districts. Limited local resources appear to be compensated for by a larger federal contribution under the number of federal programs. Of primary importance are Title I ESEA and Impact Aid P. L. 874. IEA Title IV Part A funds do not appear to be a significant factor in the total financing of education programs with significant Indian enrollments.

School districts with significant Indian enrollments have a somewhat lower average local contribution than other school districts in the sample. Although this reflects to some extent funding patterns in states with large Indian populations the differences also undoubtedly reflect the lower tax base in many of these school districts due to the income status of their residents - particularly their Indian populations. School districts with over 10 percent Indian enrollments had nearly twice as many families reporting incomes below the poverty level than in other school districts. The percentage of Indian families with reported incomes below the poverty threshold was four times the national average.

The data do not support an hypothesis that federal supplemental and special programs are necessarily diverted to support basic programs in schools with significant Indian enrollments. However, since absolute total expenditures per pupil are lower in these school districts than other school districts in the sample and federal revenues are significantly higher it would appear safe to assume that some of the supplemental funding programs are being used for basic support. Further, their appears to be some support in the data for the hypothesis that targeting of Title I ESEA funds by state and local education agencies may result in Indian students being underparticipants in this program. Where Title I funds are concentrated to provide more intense services for fewer students Indian pupils may be diverted out of participation to an even greater degree.

The availability of adequate financial resources is essential to any program to meet the special educational needs of Indian students. It does not appear that existing financial mechanisms are adequate to meet these special needs. It appears that the reasons cited in the Report on Indian Education of the American Indian Policy Review Commission are still appropriate based on this later assessment. The factors cited were:

"1. fiscal inequity both among states and among school districts within states;

2. the fact that school districts with significant numbers of Indian students are often "poor", i.e., have limited local resources;

3. the wide dispersion of Indian students, which hinders the development of special programs to meet their needs;

4. most federal programs with significant resources do not incorporate provisions to assure that funds will be directed to programs for disadvantaged Indian students; and

5. federal programs that have provided the bulk of federal funds to school districts with Indian students (Title I ESEA and SAFA) have declined in recent years — in terms of the increased costs of providing educational services."

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